WM-GX7

E Model
UK Model
Canadian Model
AEP Model

Photo: UK, Canadian, E Model

FM/MW/SW1-5 7-BAND CASSETTE CORDER

SPECIFICATIONS

Radio section

Frequency range	AEP Model: FM: 87.6–107 MHz E, UK, Canadian Model: 88–108 MHz SW_1: 5.95–6.20 MHz (49m) SW_2: 9.50–9.80 MHz (31m) SW_3: 11.70–12.00 MHz (25m) SW_4: 15.10–15.50 MHz (19m) SW_5: 17.60–18.00 MHz (16m) MW: 530–1,605 kHz
Antennas	FM/SW: Telescopic antenna MW: Built-in ferrite bar antenna

Tape recorder section and general

Recording system	2-track 1-channel
Speaker	5 cm dia (2 inches)
Fast winding time	Apporx. 2 min. with Sony cassette C-60
Frequency response	90–9,000 Hz
Input	Microphone input jack (minijack) sensitivity 0.2 mV for low impedance microphone
Output	Earphone jack (minijack)
Power output (at 10% harmonic distortion)	420 mW
Battery life	Approx. 3 hours using Sony SUM-3(NS) New Super batteries Approx. 5 hours using Sony Eveready AM3 alkaline batteries
Power requirements	6 V dc, four batteries IEC designation R6 (size AA) or BP-39 rechargeable battery pack (optional) External power input jack (required power 6 V dc) usable with Sony ac power adaptor or from 12 V car battery with Sony DCC-127A car battery cord or from 24 V car battery with DCC-240
Dimensions	Approx. 185.2 × 105.6 × 42 mm (w/h/d) ($7^3/_8 \times 4^1/_4 \times 1^{11}/_{16}$ inches) not incl. projecting parts and controls Approx. 196.2 × 112.8 × 48.4 mm (w/h/d) ($7^3/_4 \times 4^1/_2 \times 1^{15}/_{16}$ inches) incl. projecting parts and controls
Weight	Approx. 670 g (1 lb 8 oz) incl. batteries

MICROFILM

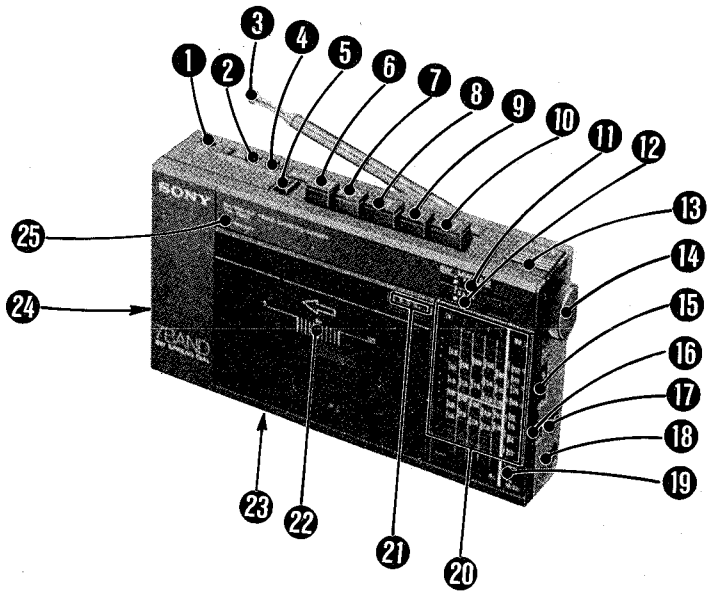
SONY

SERVICE MANUAL

FEATURES

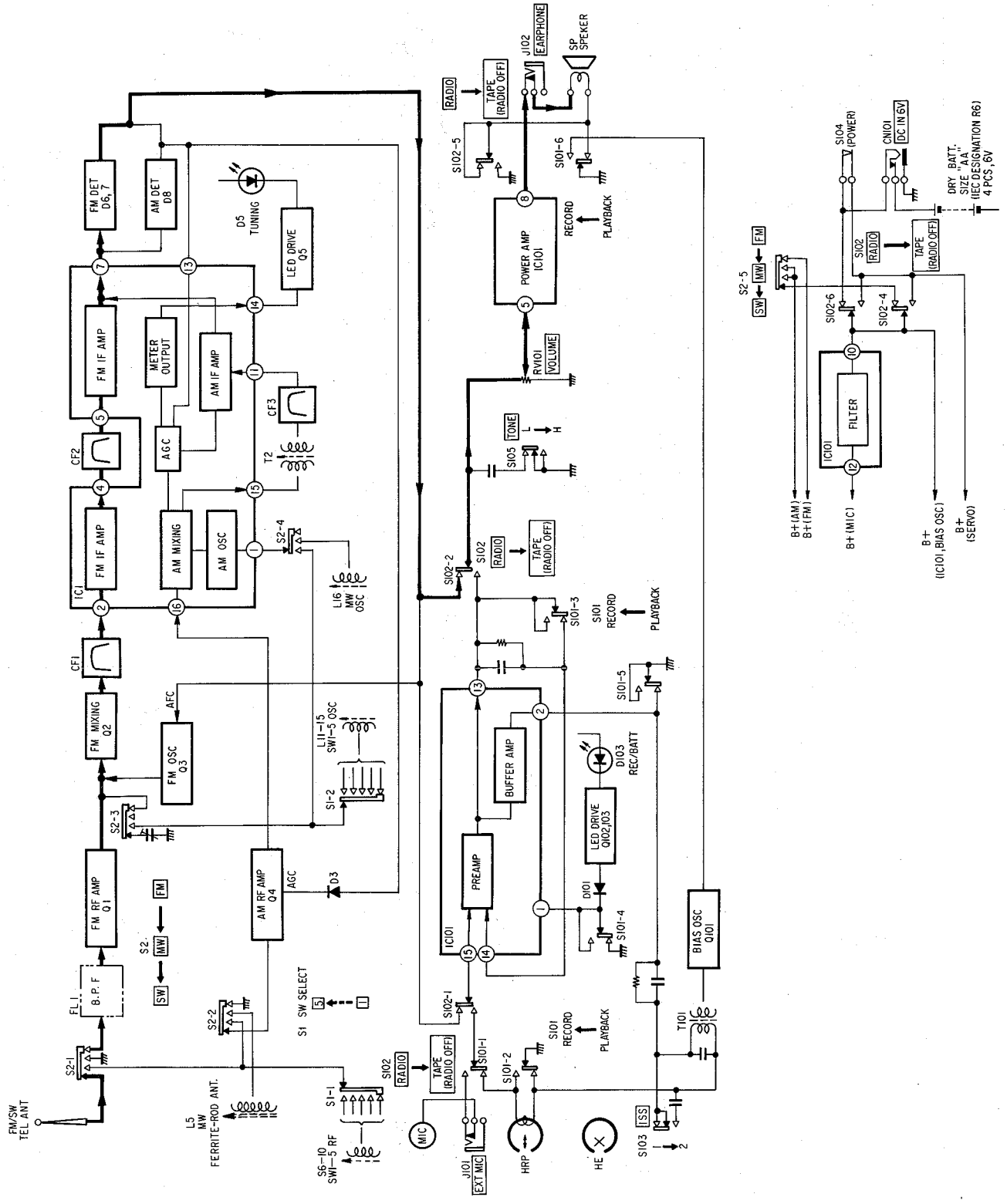
- A cassette-corder combined with a high-quality seven-band radio.
- Ultimate recording simplicity—merely insert a cassette and depress a single button.
- Instant edit function facilitates listening and correction of the program just recorded.
- Automatic recording control system automatically adjusts and maintains a proper recording level.
- Automatic shut-off mechanism activates at the end of the tape in either the record or playback mode.
- Cue and review functions to quickly locate any desired portion of the tape.
- Quick review function facilitates listening to the program just recorded.
- Four different power sources: batteries, house current, rechargeable battery and car battery.

LOCATION OF CONTROLS



❶ ISS (interference suppress switch)
❷ Function selector
❸ FM/SW telescopic antenna
❹ EXT MIC (external microphone) jack
❺ PAUSE switch
❻ ◀◀ FF/CUE (fast-forward/cue) button
❼ ▶▶ REW/REVIEW (rewind/review) button
❽ ◀ PLAY (playback) button
❾ ● REC (record) button
❿ ■ STOP/EJECT button
⓫ Band selector (FM, MW, SW)
⓬ SW band selector (SW_1–SW_5)
⓭ MIC (built-in microphone)
⓮ Tuning knob
⓯ VOLUME control
⓰ TONE selector
⓱ EARPHONE jack
⓲ DC IN 6 V (external power input) jack
⓳ TUNING indicator
⓴ Dial scale
㉑ Tape counter and reset button
㉒ Cassette holder
㉓ Speaker (rear)
㉔ Battery case (rear)
㉕ REC/BATT (record/battery) indicator

SECTION 1
BLOCK DIAGRAM

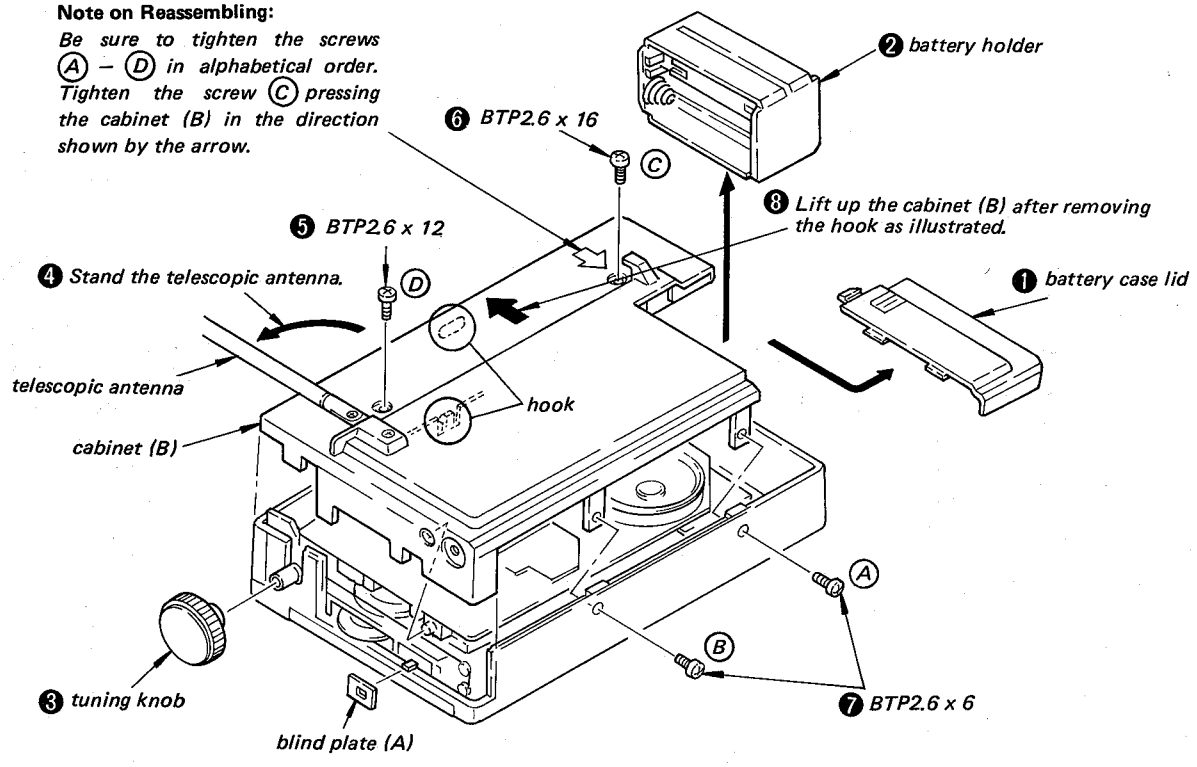


SECTION 2
DISASSEMBLY

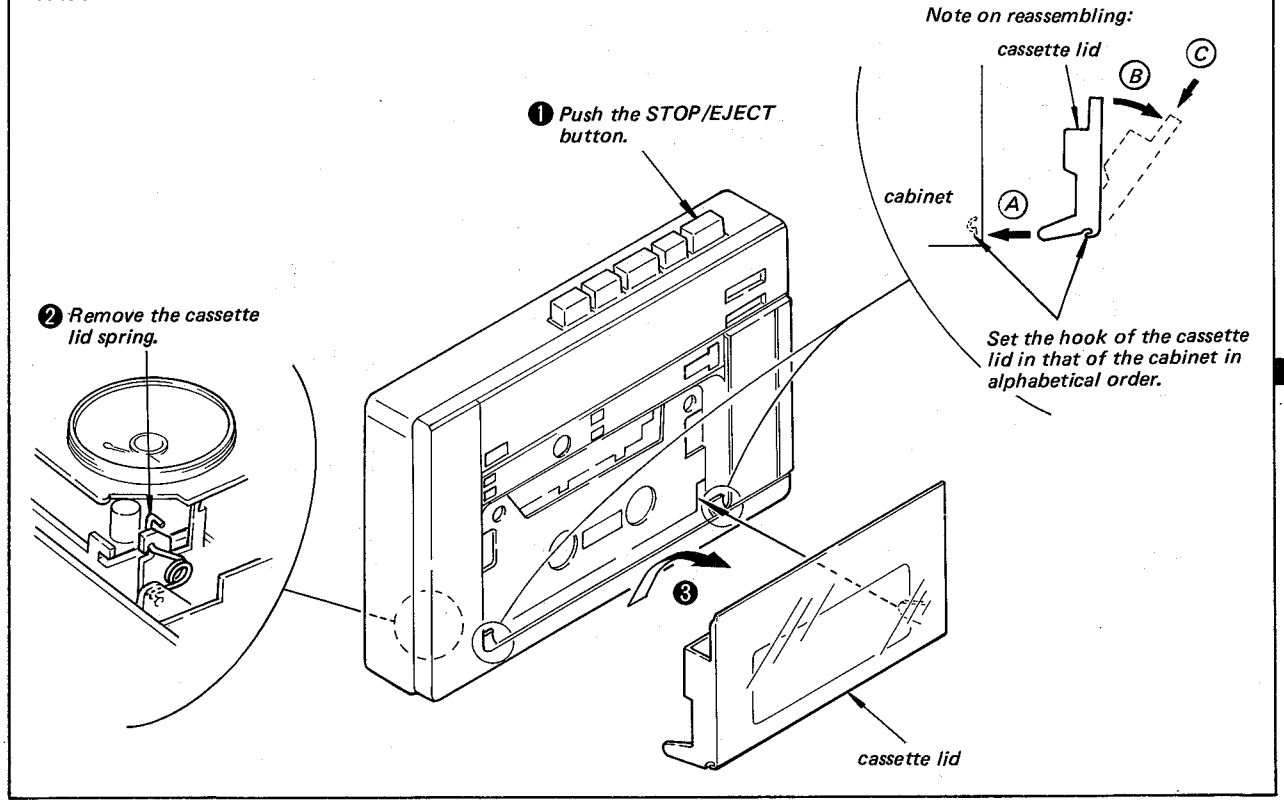
Note: Follow the disassembly procedure in the numerical order given.

CABINET (B)

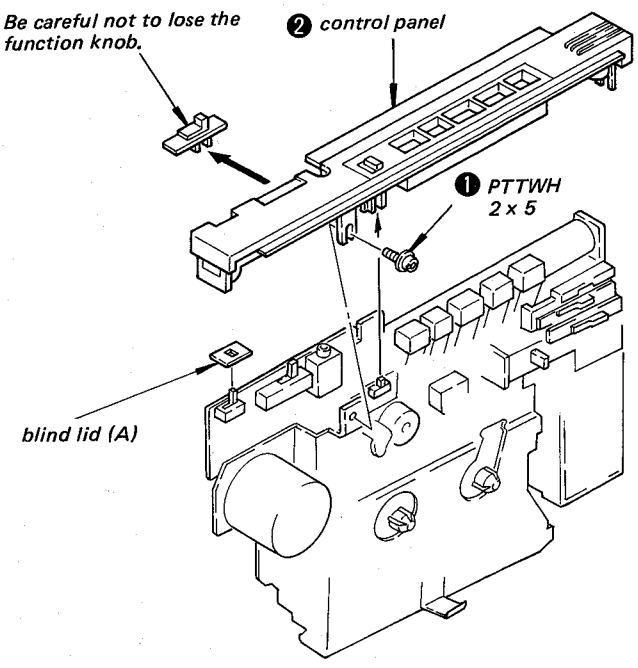
Note on Reassembling:
Be sure to tighten the screws Ⓐ – Ⓓ in alphabetical order. Tighten the screw Ⓒ pressing the cabinet (B) in the direction shown by the arrow.



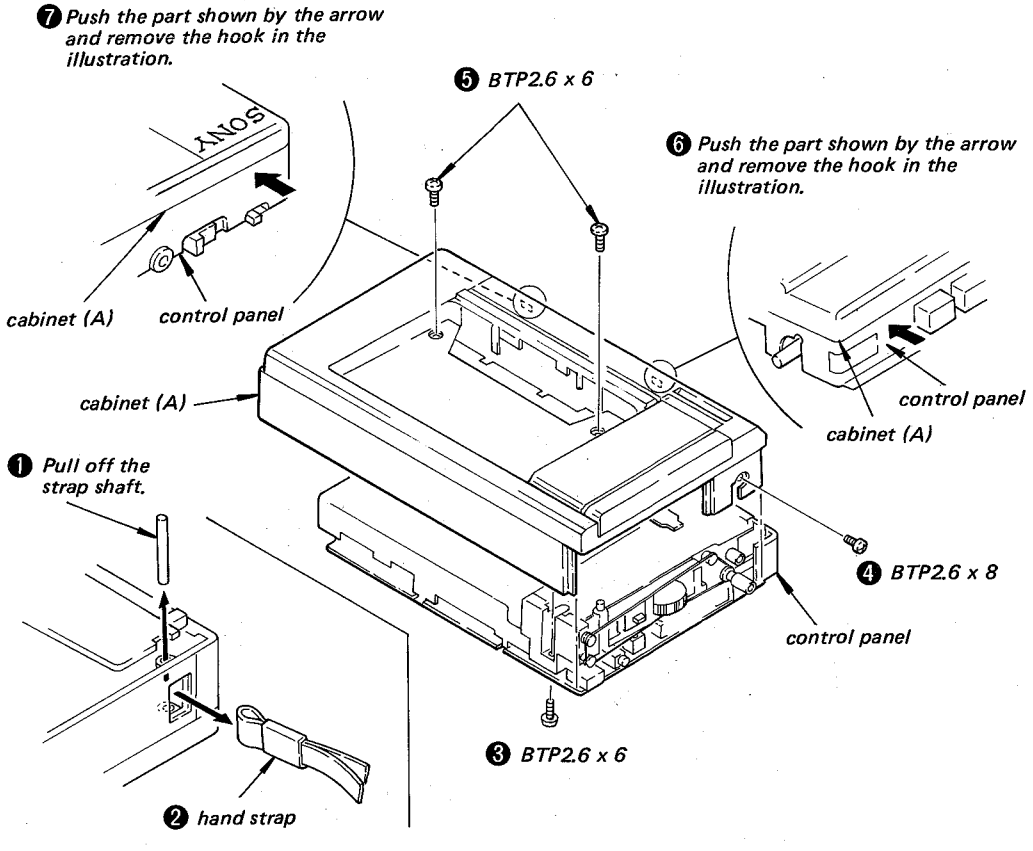
CASSETTE LID



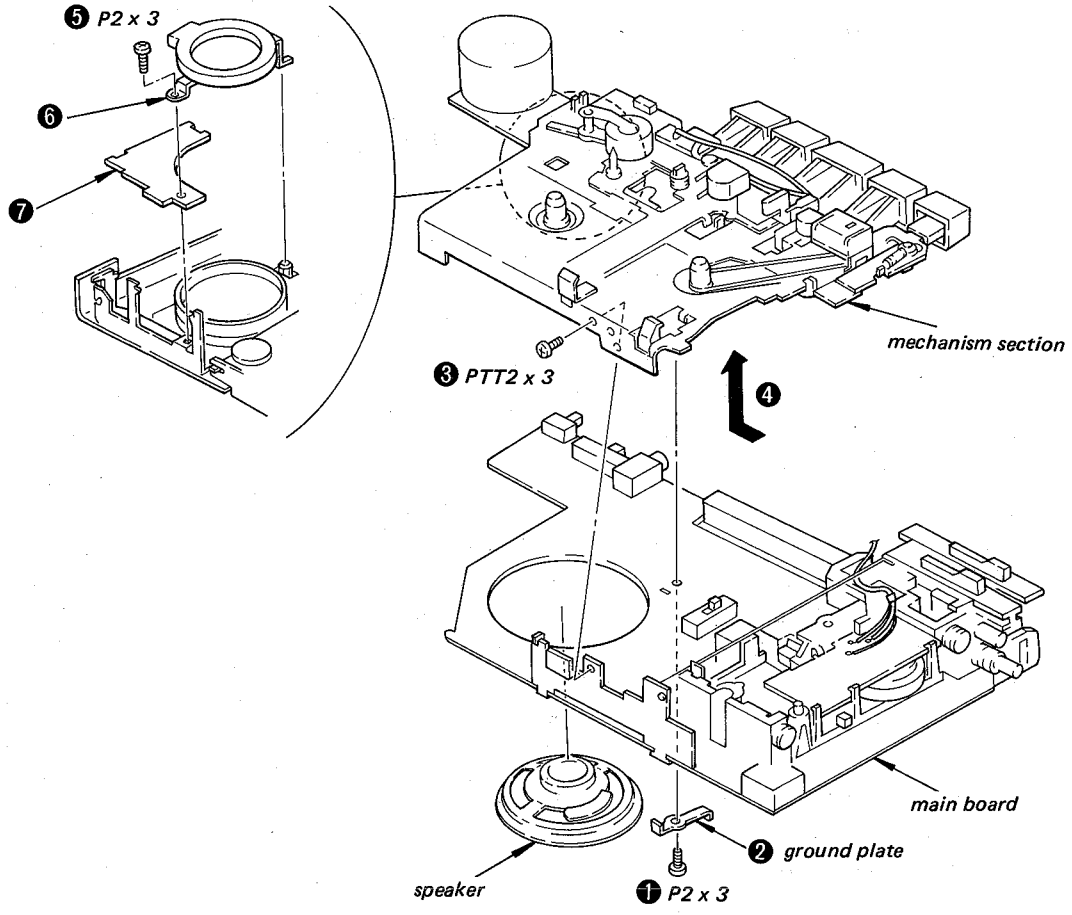
CONTROL PANEL



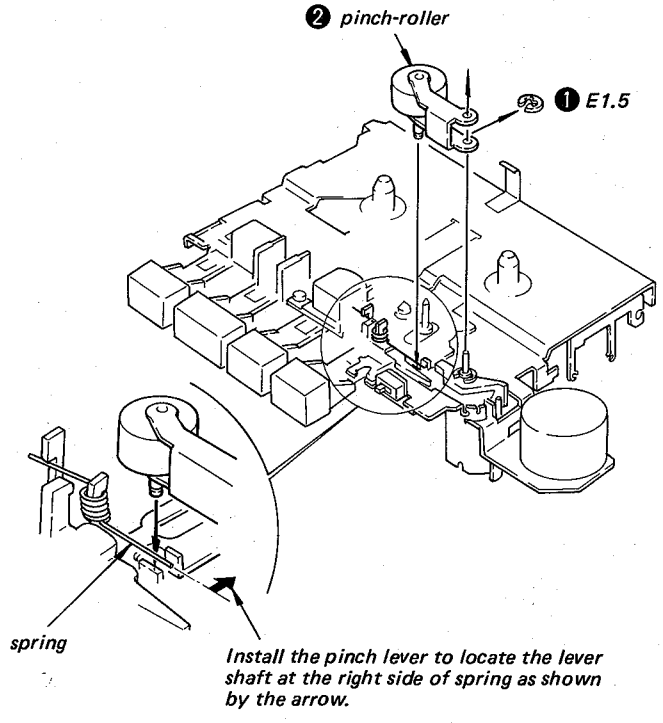
CABINET (A)


❼ Push the part shown by the arrow and remove the hook in the illustration.
❺ BTP2.6 x 6
❻ Push the part shown by the arrow and remove the hook in the illustration.
SONY
cabinet (A)
control panel
cabinet (A)
control panel
cabinet (A)
❶ Pull off the strap shaft.
❹ BTP2.6 x 8
control panel
❸ BTP2.6 x 6
❷ hand strap

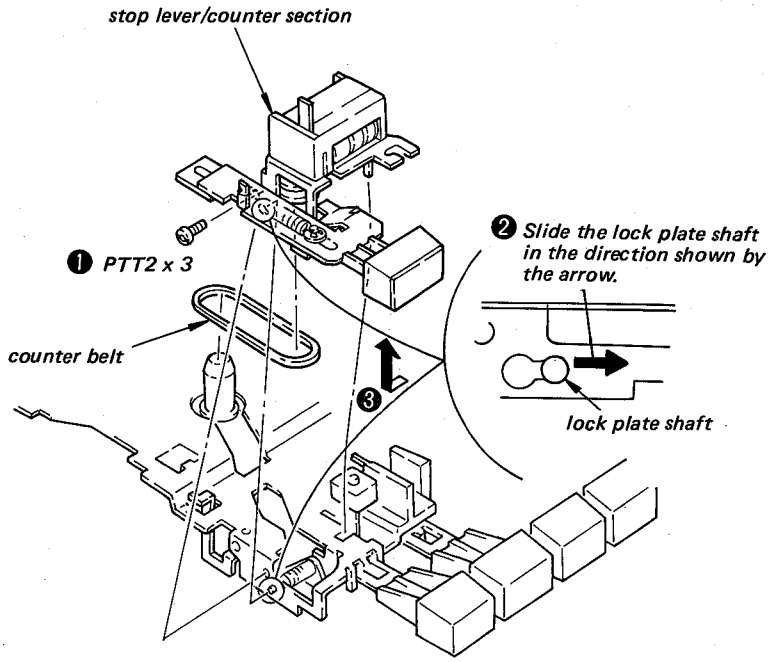
MAIN BOARD / MECHANISM SECTION and SERVO BOARD



PINCH-ROLLER

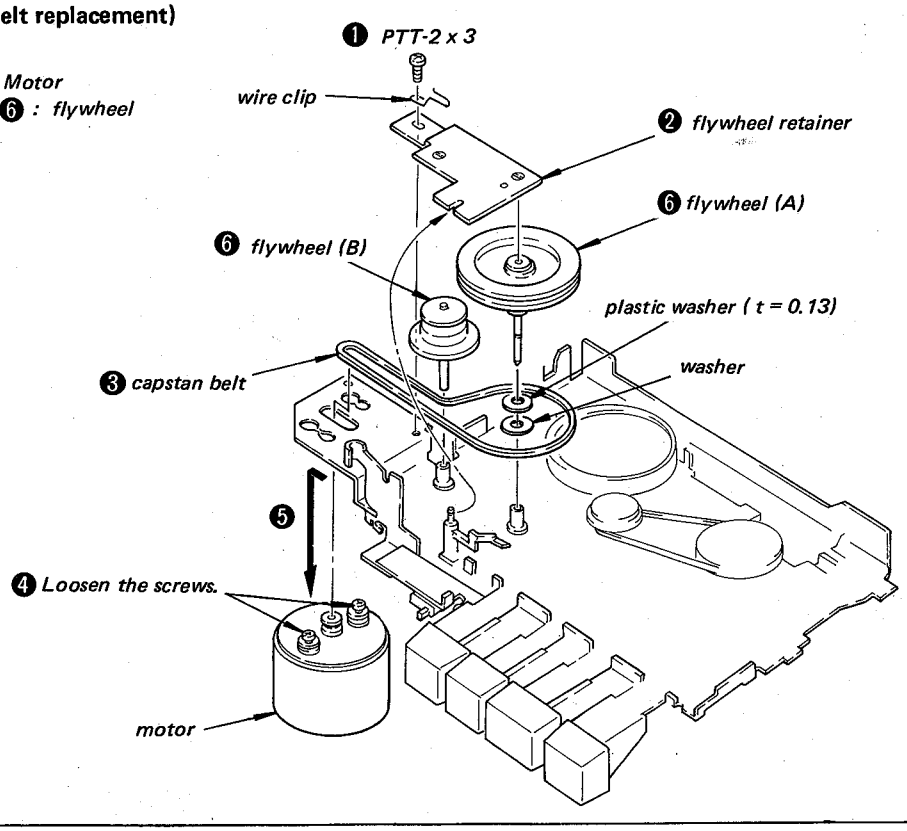

❷ pinch-roller
❶ E1.5
spring
Install the pinch lever to locate the lever shaft at the right side of spring as shown by the arrow.

STOP LEVER and COUNTER (Counter belt replacement)


stop lever/counter section
❶ PTT2 x 3
counter belt
❷ Slide the lock plate shaft in the direction shown by the arrow.
❸
lock plate shaft

MOTOR / FLYWHEEL
(Capstan belt replacement)

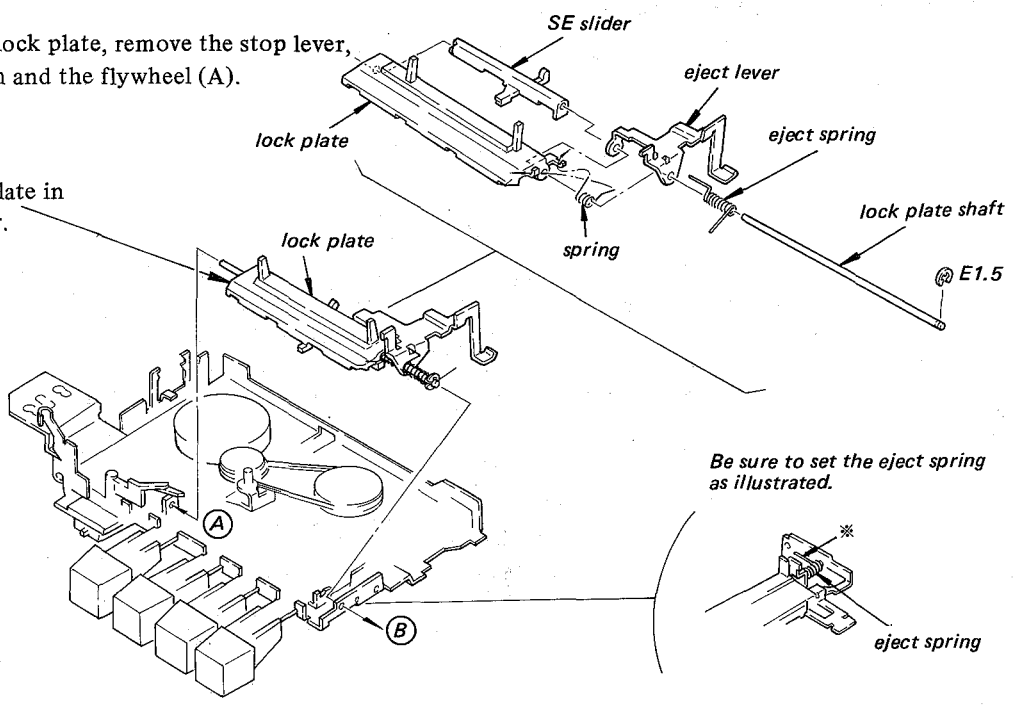
❶ – ❺ : Motor
❶ – ❸, ❻ : flywheel



LOCK PLATE

To reassemble the lock plate, remove the stop lever, the counter section and the flywheel (A). (Refer to page 7.)

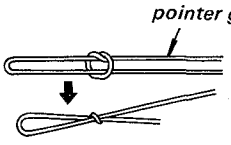
Attach the lock plate in alphabetical order.



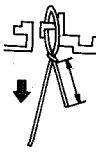
TUNER CHASSIS

Pointer Guide Stringing

❶ *Tie the pointer guide string as illustlated.*



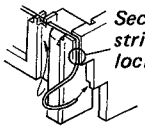
❷ *(Ⓐ section)*



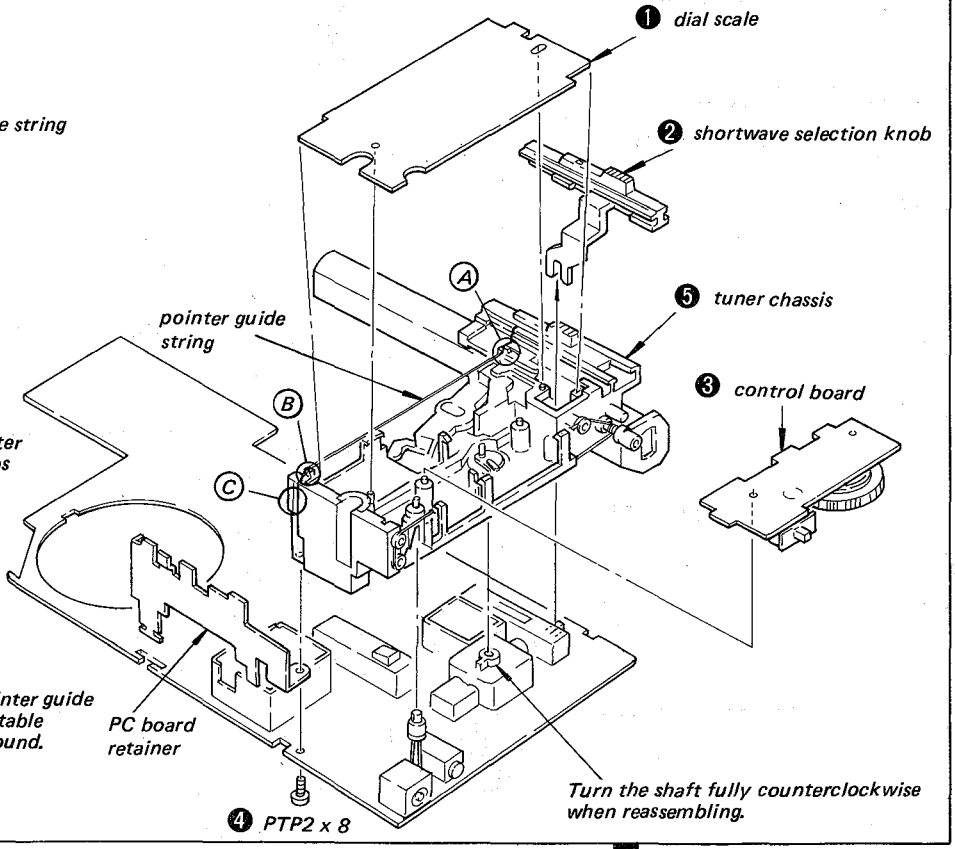
Cut the pointer guide string as illustrated.

❸ *(Ⓑ section)*

❹ *(Ⓒ section)*



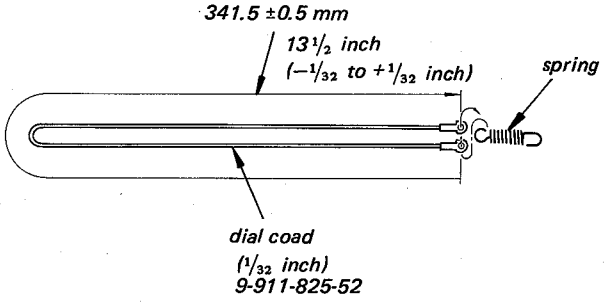
Secure the pointer guide string with suitable locking compound.



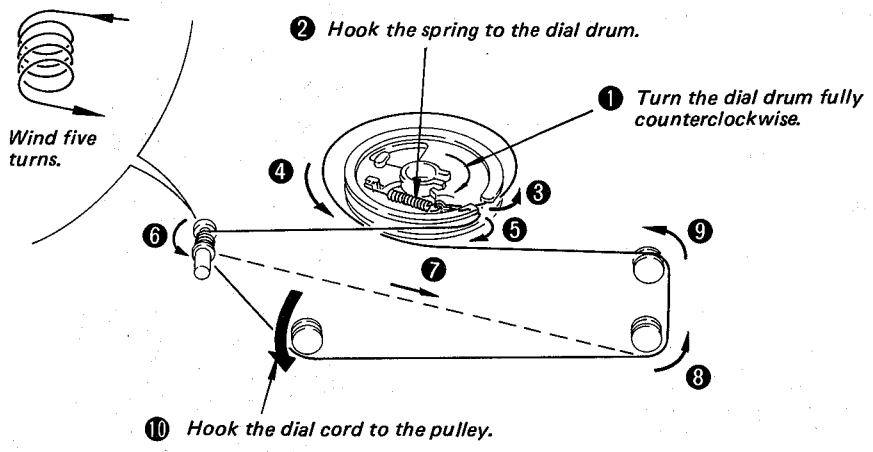
Dial cord stringing. (Refer to page 9.)

DIAL CORD STRINGING

1) Preparation

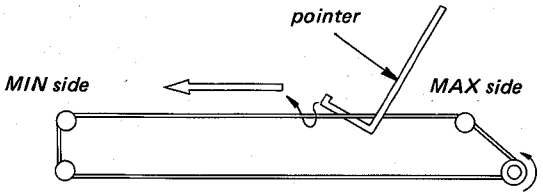


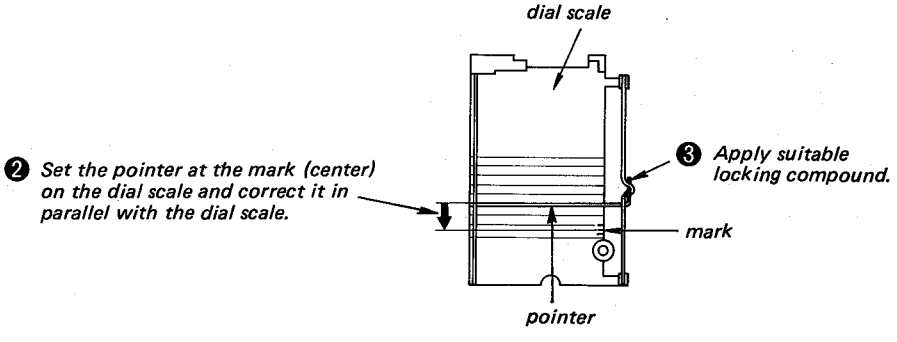
2) Stringing



3) Dial Pointer Installation

❶ Set the pointer at the MAX side of the dial cord and move to the MIN side, as illustrated.




dial scale
❸ Apply suitable locking compound.
❷ Set the pointer at the mark (center) on the dial scale and correct it in parallel with the dial scale.
mark
pointer

SECTION 3
ADJUSTMENTS

3-1 MECHANICAL ADJUSTMENTS

PRECAUTION

1. Clean the following parts with a denatured-alcohol-moistened swab:

record/playback head	pinch roller
erase head	rubber belts
capstan	idlers

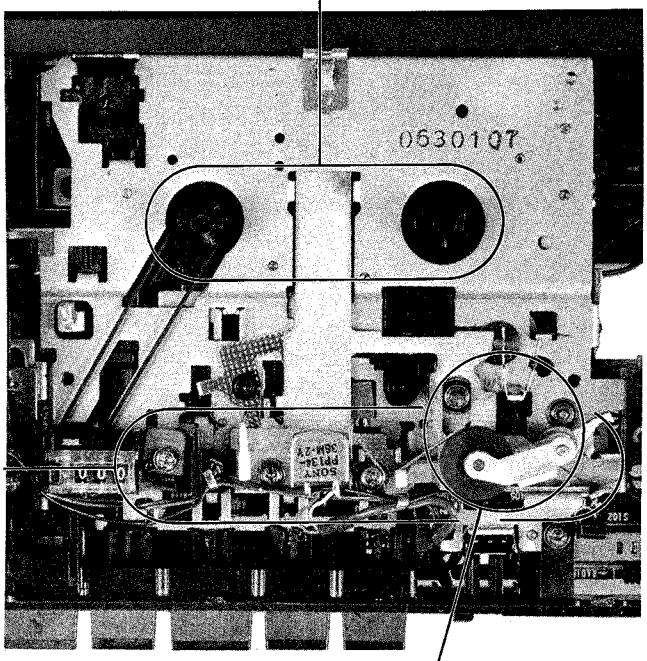
2. Demagnetize the record/playback head with a head demagnetizer. (Do not bring the head demagnetizer close to the erase head.)
3. Do not use a magnetized screwdriver for the adjustments.
4. After the adjustments, apply suitable locking compound to the parts adjusted.
5. The adjustments should be performed with the rated power supply voltage unless otherwise noted.

Torque Measurement

Torque	Torque meter	Meter reading
Forward	CQ-102B	25–45g·cm (0.35–0.63 oz-inch)
Fast Forward and Rewind	CQ-201B	more than 70 g·cm (more than 0.97 oz-inch)
Back Tension	CQ-102C	2.5–4 g·cm (0.03–0.06 oz-inch)

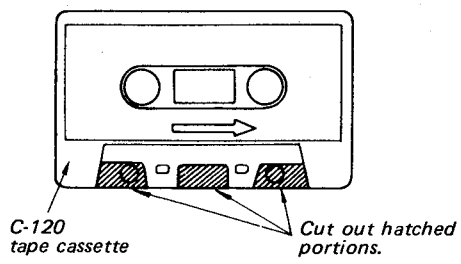
Tape Pulling Strenght Measurement

Meter	Meter reading
CQ-403	

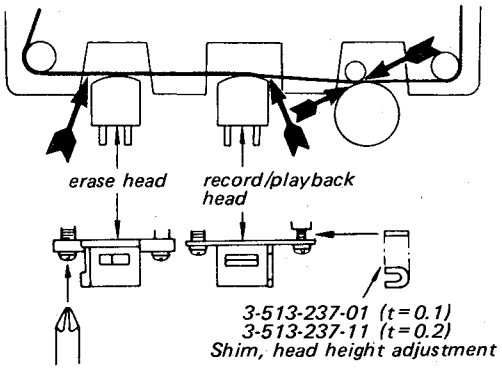


Head Height Adjustment

1. Prepare an adjustment cassette as shown below.



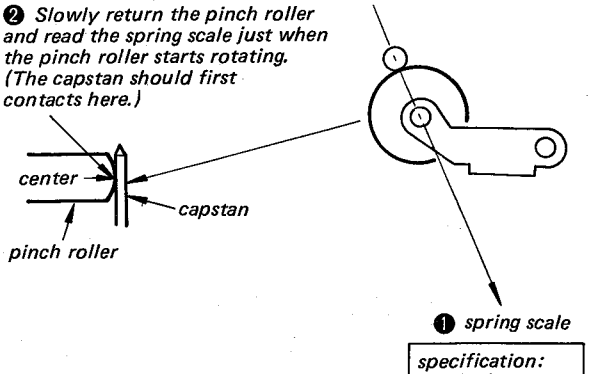
2. In record mode and viewing from the front, adjust the head heights to eliminate tape curl and tape twist at portions shown by arrows.



Pinch Roller Pressure Adjustment

– Playback Mode –

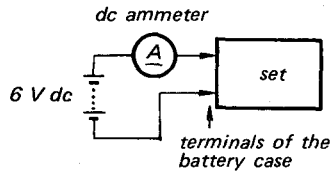
❷ *Slowly return the pinch roller and read the spring scale just when the pinch roller starts rotating. (The capstan should first contacts here.)*



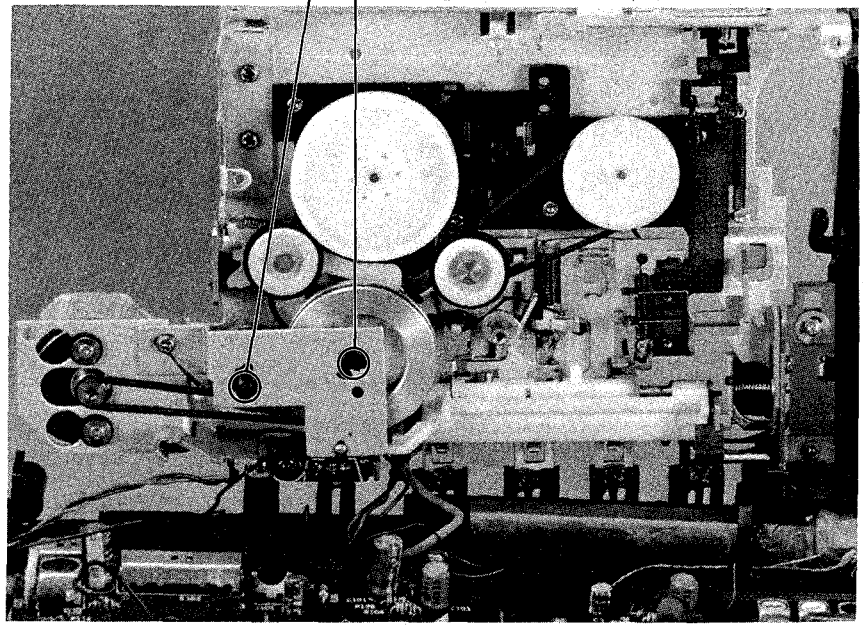
specification: 250–330 g (8.82–11.64 oz)

Flywheel Thrust Play Adjustment

– Playback Mode –



1. Loosen the two adjustment screws.
2. Turn one of them clockwise carefully.
3. Stop turning it when the current suddenly increase and loosen it 1/4 turn.
4. Adjust the other screw in the same way as step 2 and 3.
5. Secure the adjustment screws with locking compound.



SECTION 4
ADJUSTMENTS

3-2. ELECTRICAL ADJUSTMENT

CASSETTE RECORDER SECTION

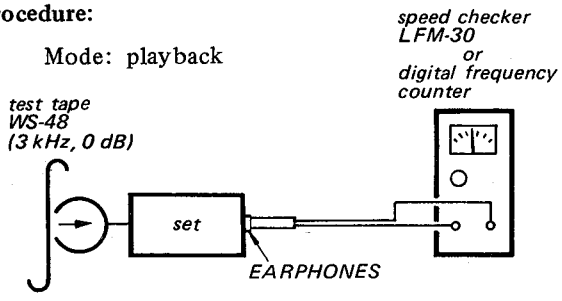
Tape Speed Adjustment

Setting:

VOLUME control: mechanical mid

Procedure:

Mode: playback

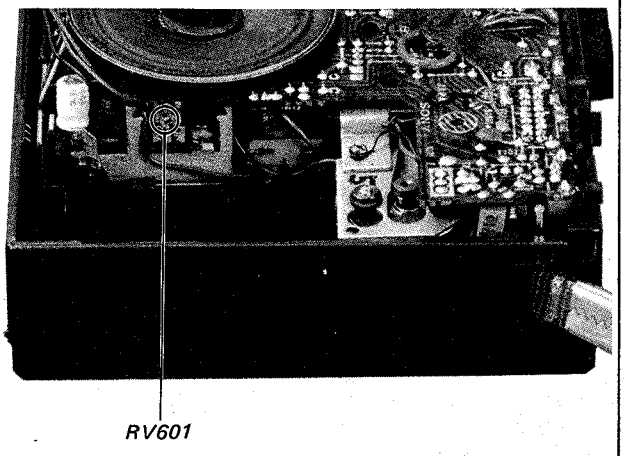


Specification:

−0.7 to 0.7 %	2,960 – 3,000 Hz

Frequency difference between beginning and end of tape should be within 1.5 % (45 Hz). If necessary, adjust RV601.

Adjustment Location: Servo board



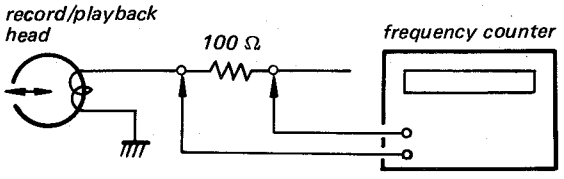
Bias OSC Frequency Adjustment (AEP Model)

Setting:

TONE control: HIGH
FUNCTION switch: TAPE

Procedure:

1. Mode: record

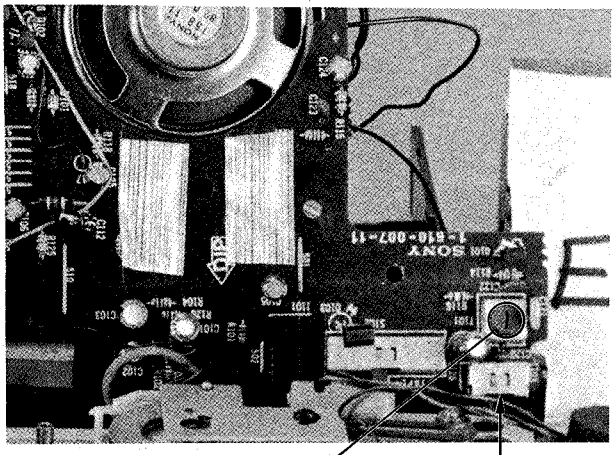


Connect 100 Ω resistor as shown.

S103 (ISS)	Frequency Counter
1	36.0 – 38.0 kHz
2	34.6 – 36.6 kHz

2. Adjust T101 to obtain the specification.

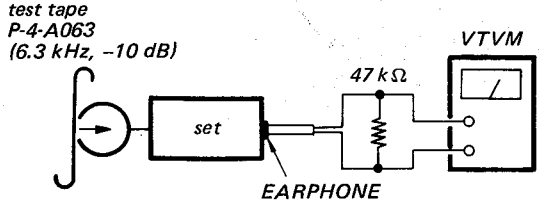
Adjustment Location: Main board.



Record/playback Head Azimuth Adjustment

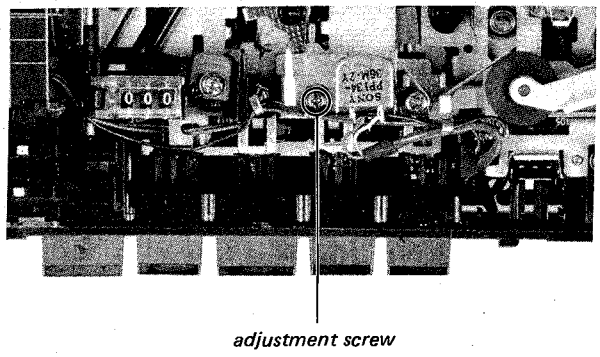
Procedure:

1. Mode: playback

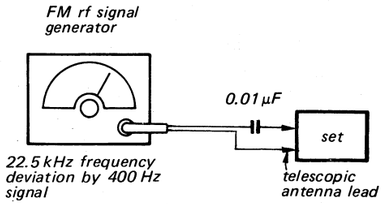


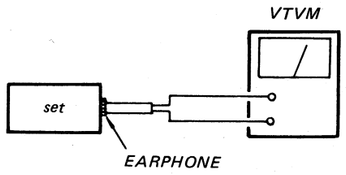
2. Turn the adjustment screw for maximum VTVM reading.

Adjustment Location:



FM SECTION



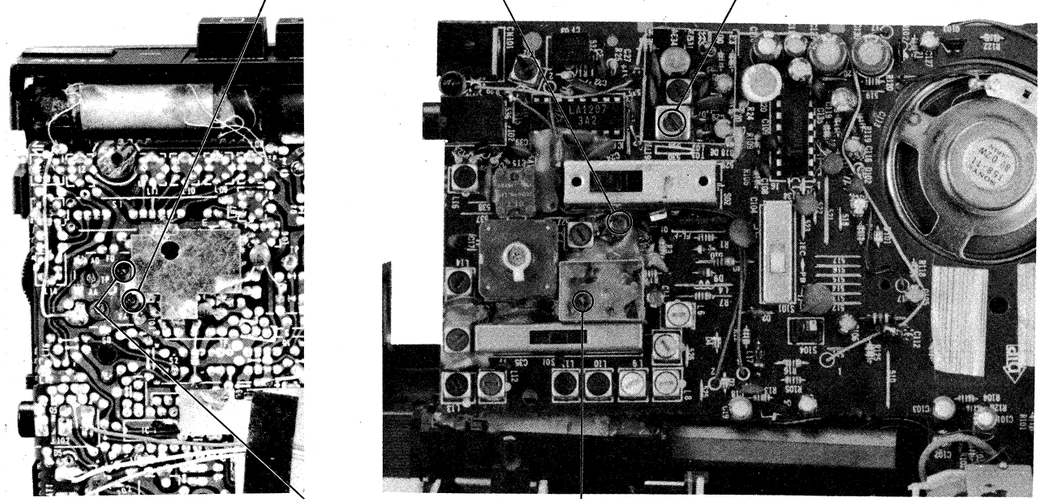


- Repeat the procedures in each adjustment several times, and the frequency coverage and tracking adjustments should be finally done by the trimmer capacitors.

( ): AEP Model

FM TRACKING ADJUSTMENT	
Adjust for a maximum reading on VTVM.	
108.7 MHz (108.0 MHz)	87.1 MHz (87.35 MHz)
CT1	L1

FM IF ALIGNMENT
Adjust for a maximum reading on VTVM.
T3

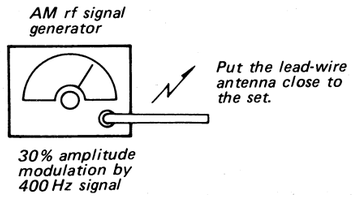


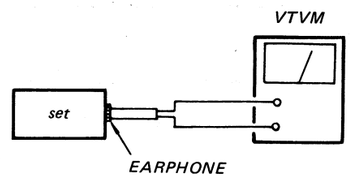
CT2	L3
108.7 MHz (108.0 MHz)	87.1 MHz (87.35 MHz)
Adjust for a maximum reading on VTVM.	
FM FREQUENCY COVERAGE ADJUSTMENT	

( ): AEP Model

AM SECTION

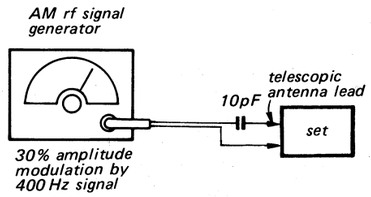
- MW





- Repeat the procedures in each adjustment several times, and the frequency coverage and tracking adjustments should be finally done by the trimmer capacitors.

- SW1–5

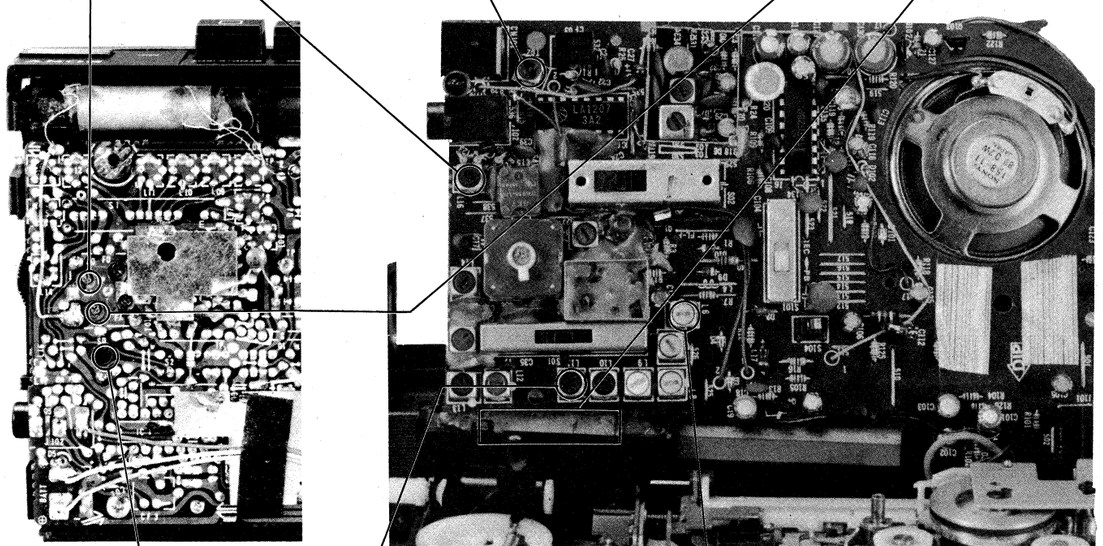


MW FREQUENCY COVERAGE ADJUSTMENT	
Adjust for a maximum reading on VTVM.	
1,680 kHz	520 kHz
CT4	L16

AM IF ALIGNMENT	
Adjust for a maximum reading on VTVM.	
T2	450 kHz (468 kHz)

( ): UK MODEL

MW TRACKING ADJUSTMENT	
Adjust for maximum reading on VTVM.	
1,400 kHz	620 kHz
CT3	L5



CT5	L11
6.25 MHz	5.90 MHz
Adjust for a maximum reading on VTVM.	
SW1 FREQUENCY COVERAGE ADJUSTMENT	

L6
6.075 MHz
Adjust for a maximum reading on VTVM.
AW1 TRACKING ADJUSTMENT

Note:
Adjust SW1

SW4 FF
Adjust on VT
15.3 M

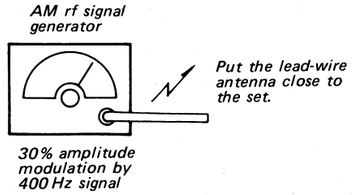
SW5 FF
Adjust on VT
17.80

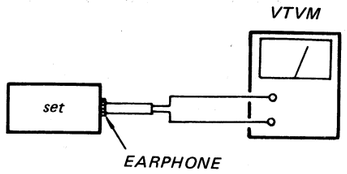
SW3 FF
Adjust on VT
11.85

Adjust on VT
SW5 TR

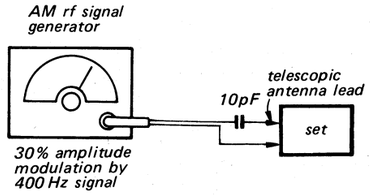
AM SECTION

● MW





● SW1–5



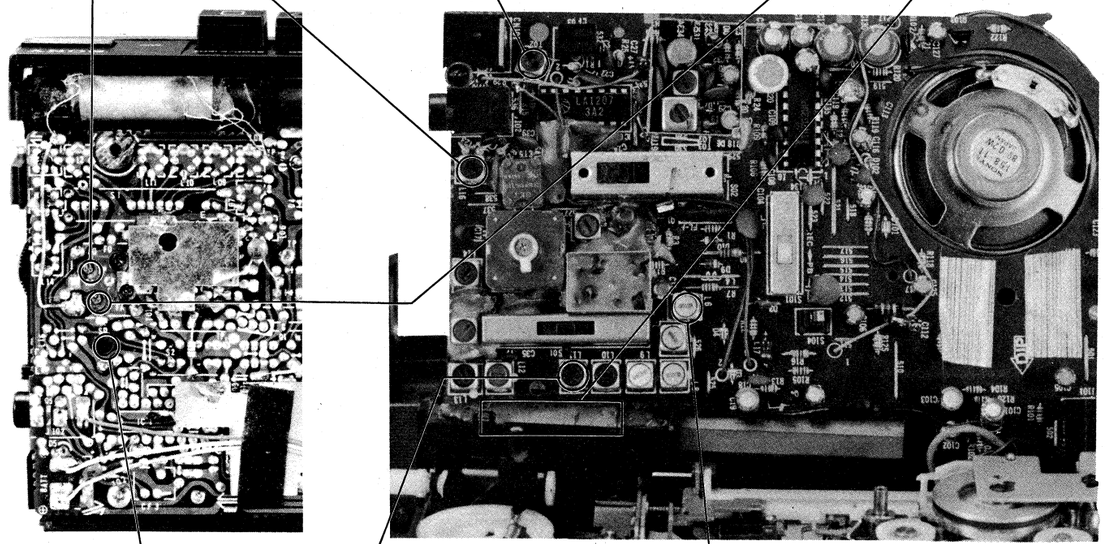
● Repeat the procedures in each adjustment several times, and the frequency coverage and tracking adjustments should be finally done by the trimmer capacitors.

MW FREQUENCY COVERAGE ADJUSTMENT	
Adjust for a maximum reading on VTVM.	
1,680 kHz	520 kHz
CT4	L16

AM IF ALIGNMENT	
Adjust for a maximum reading on VTVM.	
T2	450 kHz (468 kHz)

( ): UK MODEL

MW TRACKING ADJUSTMENT	
Adjust for maximum reading on VTVM.	
1,400 kHz	620 kHz
CT3	L5



CT5	L11
6.25 MHz	5.90 MHz
Adjust for a maximum reading on VTVM.	
SW1 FREQUENCY COVERAGE ADJUSTMENT	

L6
6.075 MHz
Adjust for a maximum reading on VTVM.
AW1 TRACKING ADJUSTMENT

Note:
Adjust SW2, SW3, SW4 and SW5, after SW1 adjustments are performed.

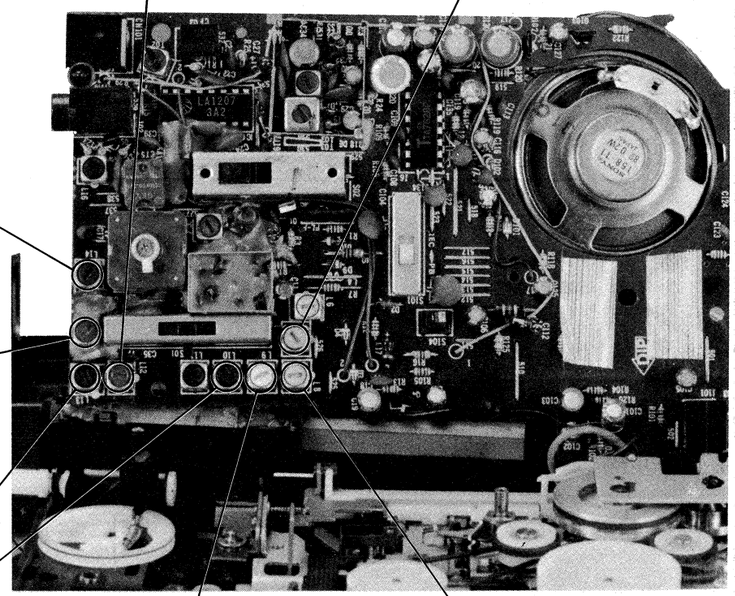
SW2 FREQUENCY COVERAGE ADJUSTMENT
Adjust for a maximum reading on VTVM.
9.65 MHz
L12

SW2 TRACKING ADJUSTMENT
Adjust for a maximum reading on VTVM.
9.65 MHz
L7

SW4 FREQUENCY COVERAGE ADJUSTMENT	
Adjust for a maximum reading on VTVM.	
15.3 MHz	L14

SW5 FREQUENCY COVERAGE ADJUSTMENT	
Adjust for a maximum reading on VTVM.	
17.80 MHz	L15

SW3 FREQUENCY COVERAGE ADJUSTMENT	
Adjust for a maximum reading on VTVM.	
11.85 MHz	L13



L10
17.80 MHz
Adjust for a maximum reading on VTVM.
SW5 TRACKING ADJUSTMENT

L9
15.30 MHz
Adjust for a maximum reading on VTVM.
SW4 TRACKING ADJUSTMENT

L8
11.85 MHz
Adjust for a maximum reading on VTVM.
SW3 TRACKING ADJUSTMENT

WA-5000 WA-5000

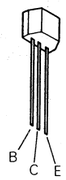
SECTION 5
DIAGRAMS

5-1. MOUNTING DIAGRAM

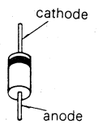
— Conductor Side —

● **Semiconductor Lead Layouts**

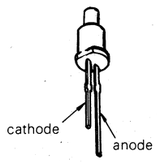
2SC668-SP
2SC2458
2SC2839
2SD1012



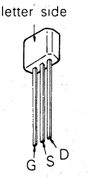
1S2687S-1
1SS106
1SS119
RD3.9EB2



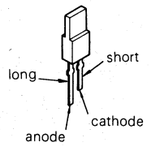
SLP146B



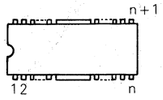
2SK193



SLP161B

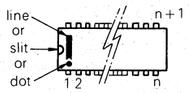


LA1207



(Top view)

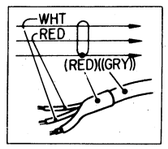
TA7628P



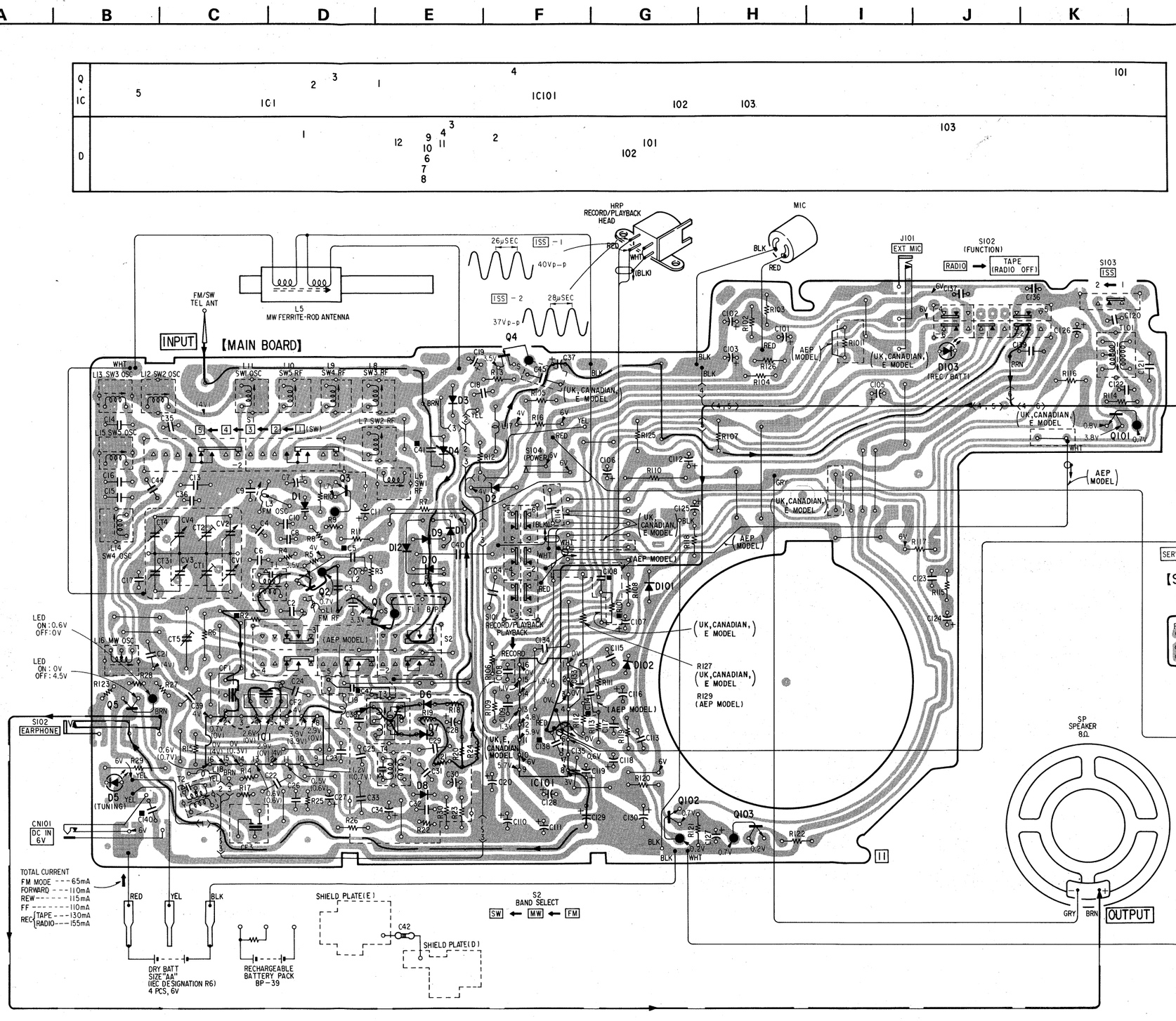
(Top view)

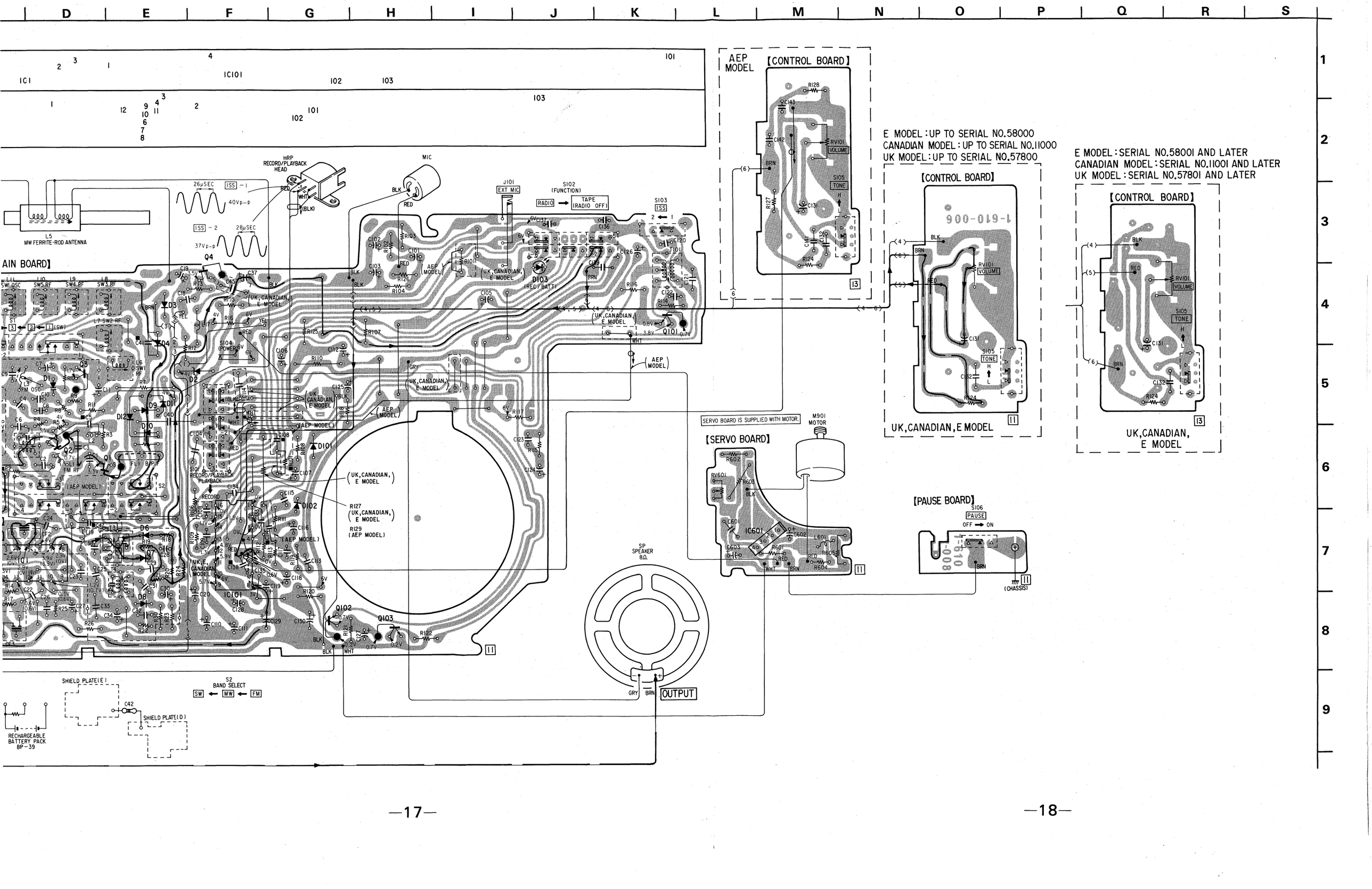
Note:

- Color code of sleeving over the end of the jacket.

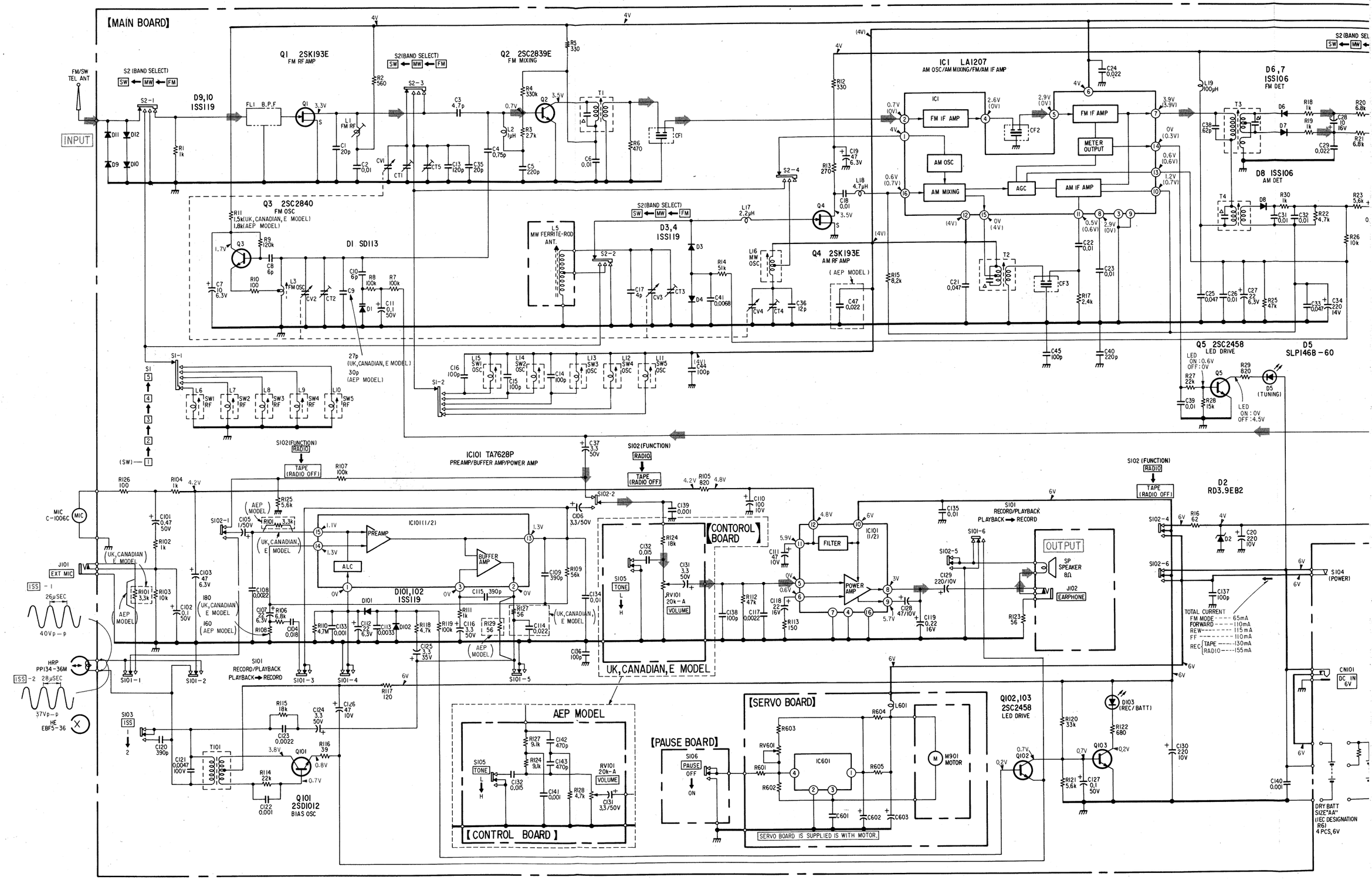


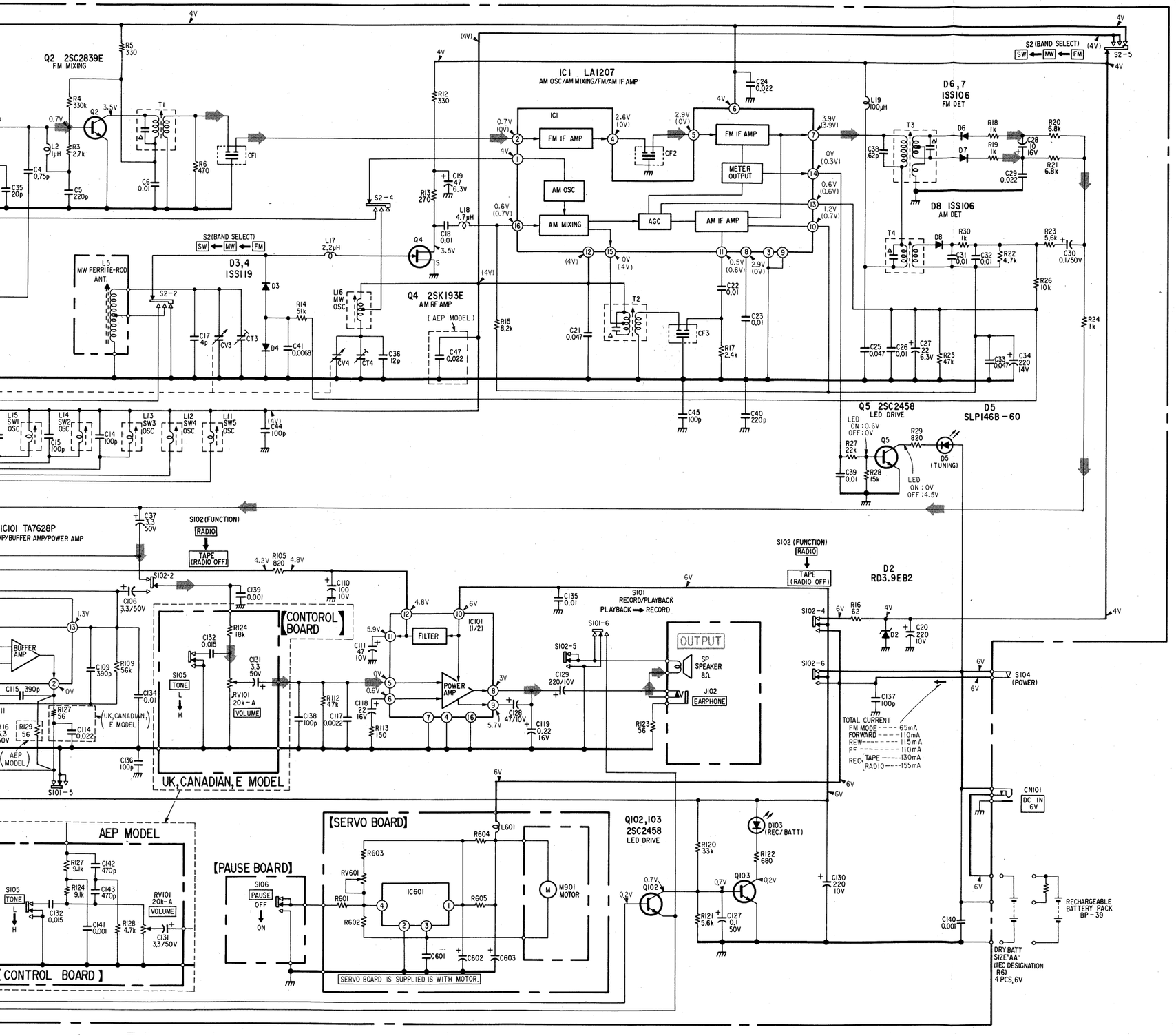
- ○— : parts extracted from the component side.
- ●— : parts extracted from the conductor side.
- ⬚← : indicates side identified with part number.
- ▒ : B + pattern
- ▬▶▬ : signal path
- ▬·▬▶ : L-CH signal path
- ▬··▬▶ : R-CH signal path




D E F G H I J K L M N O P Q R S
1 2 3 4 5 6 7 8 9
IC1
IC101
101
102
103
AEP MODEL 【CONTROL BOARD】
R128
C143
C142
RV101 VOLUME
SI05 TONE
C131
C141
C132
R124
R127
BRN
13
E MODEL : UP TO SERIAL NO.58000
CANADIAN MODEL : UP TO SERIAL NO.11000
UK MODEL : UP TO SERIAL NO.57800
【CONTROL BOARD】
1-610-006
BLK
BRN
RED
RV101 VOLUME
SI05 TONE
C131
C132
R124
11
UK,CANADIAN,E MODEL
E MODEL : SERIAL NO.58001 AND LATER
CANADIAN MODEL : SERIAL NO.11001 AND LATER
UK MODEL : SERIAL NO.57801 AND LATER
【CONTROL BOARD】
BLK
RED
BRN
RV101 VOLUME
SI05 TONE
C131
C132
R124
13
UK,CANADIAN, E MODEL
HRP RECORD/PLAYBACK HEAD
MIC
J101 EXT MIC
SI02 (FUNCTION)
RADIO
TAPE (RADIO OFF)
SI03
L5 MW FERRITE-ROD ANTENNA
26μSEC
40Vp-p
28μSEC
37Vp-p
Q4
AIN BOARD】
D103 (REC/BATT)
Q101
SI04 (POWER)
SI01 RECORD/PLAYBACK PLAYBACK
RECORD
IC101
Q102
Q103
R127 (UK,CANADIAN, E MODEL)
R129 (AEP MODEL)
SERVO BOARD IS SUPPLIED WITH MOTOR.
M901 MOTOR
【SERVO BOARD】
R602
RV601
R608
C601
IC601
C602
C603
L601
R601
R605
R604
11
【PAUSE BOARD】
SI06
PAUSE
OFF → ON
11
(CHASSIS)
SP SPEAKER 8Ω
GRY
BRN
OUTPUT
SHIELD PLATE(E)
C42
SHIELD PLATE(D)
S2 BAND SELECT
SW ← MW ← FM
RECHARGEABLE BATTERY PACK BP-39

5-2. SCHEMATIC DIAGRAM





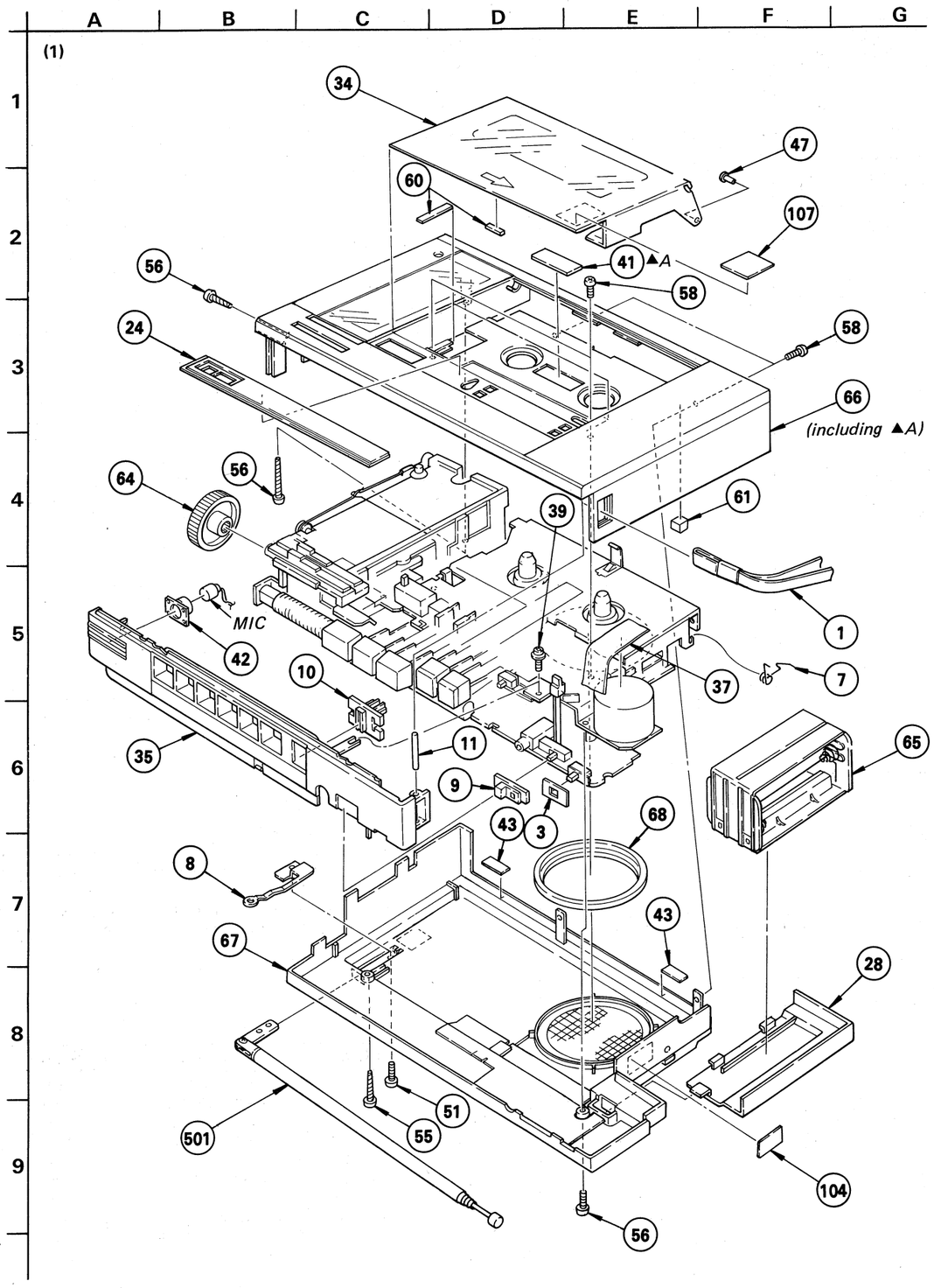
Note:

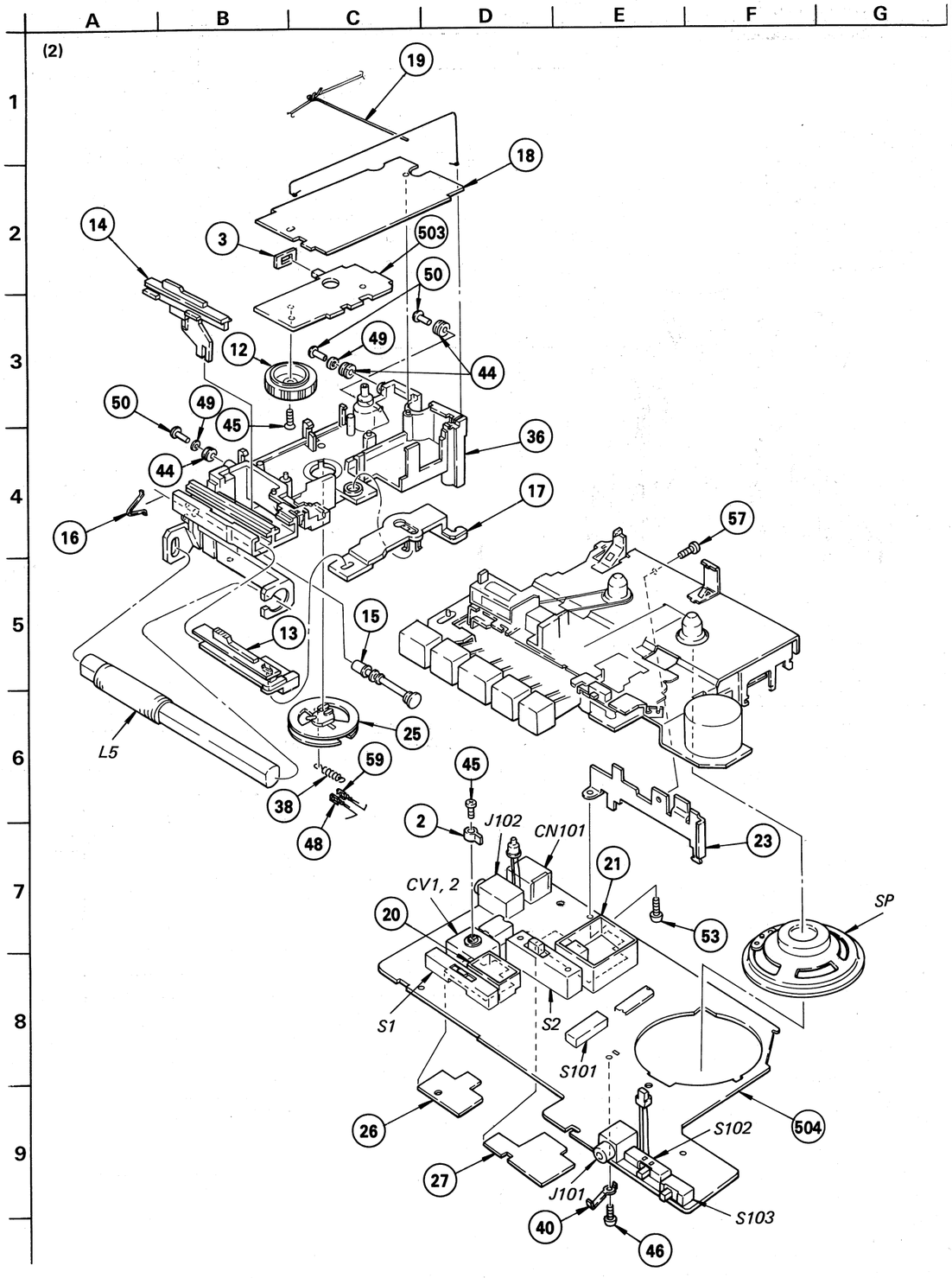
- ➡ : signal path
- All capacitors are in μF unless otherwise noted. pF : μμF 50WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in ohms, 1/6 W unless otherwise noted. kΩ: 1000 Ω, MΩ: 1000 kΩ
- ——: B+ bus.
- Readings are taken undder no-signal (detuned) conditions with a VOM (AM50 kΩ/V).
  ( ):
- Switch

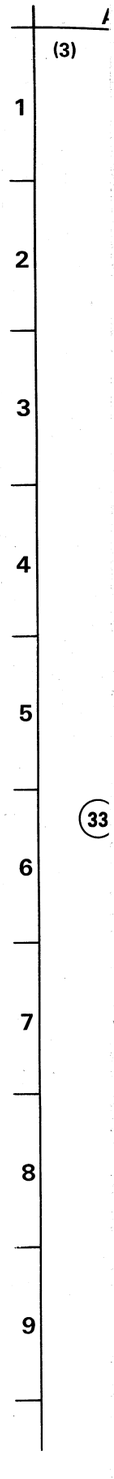
Ref. No.	Switch	Position
S1	SW SELECT	SW1
S2	BAND SELECT	FM
S101	Record/Playback	Playback
S102	RADIO/TAPE	RADIO
S103	ISS	1
S104	POWER	OFF
S105	TONE	L
S106	PAUSE	OFF

Note: Voltages are measured with a VOM (50kΩ/V).

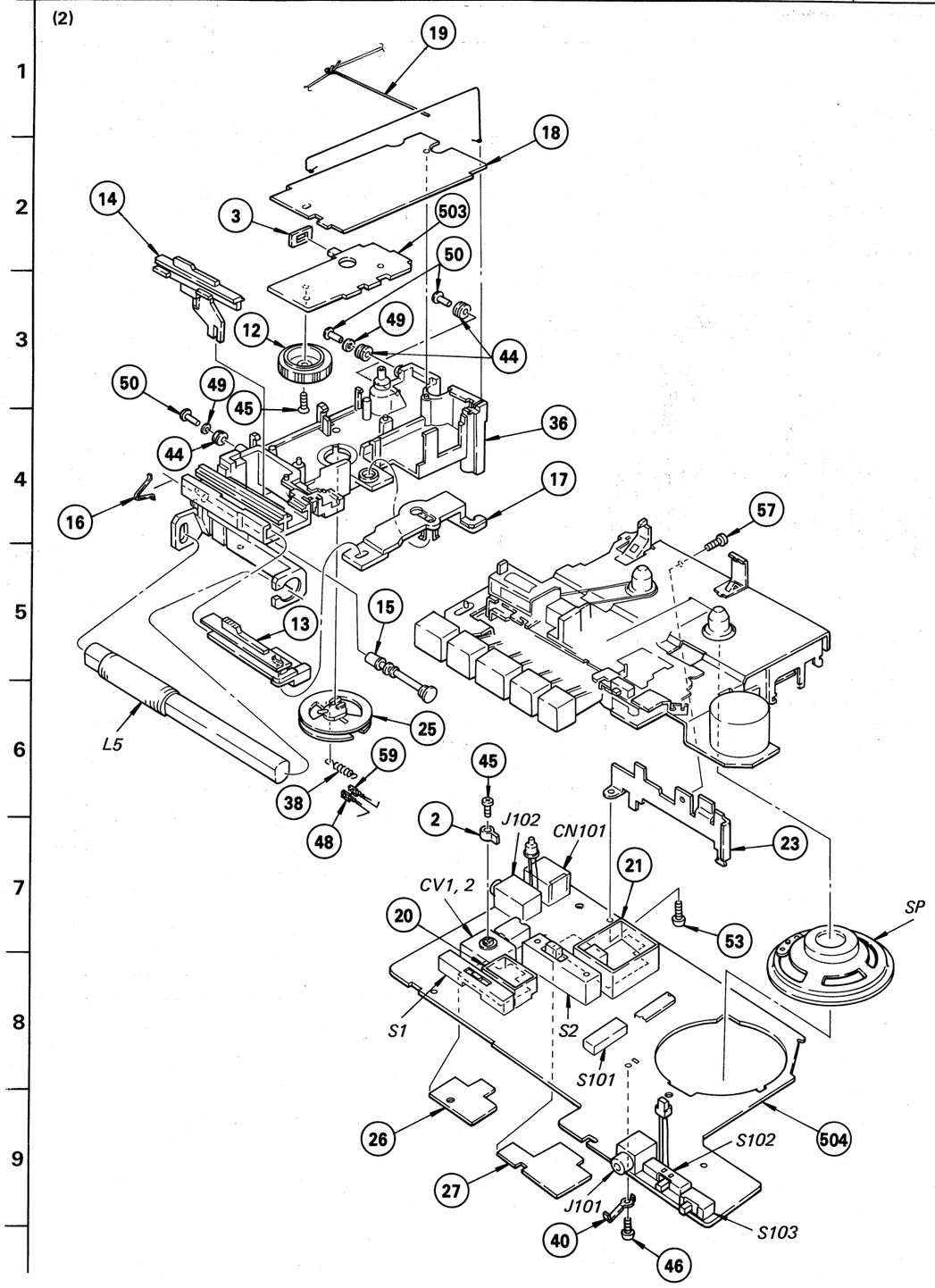
SECTION 6
EXPLODED VIEWS AND PARTS LIST



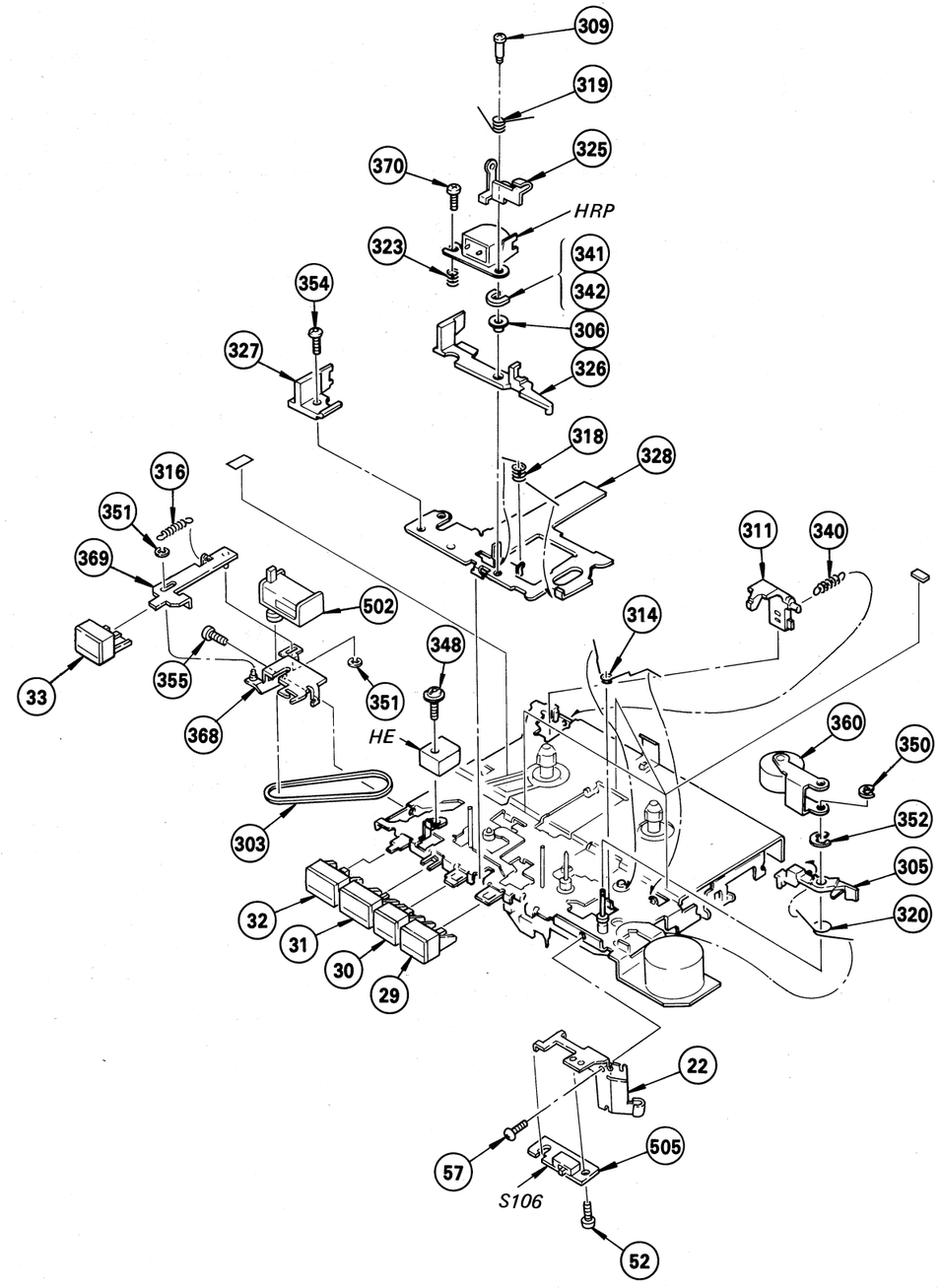


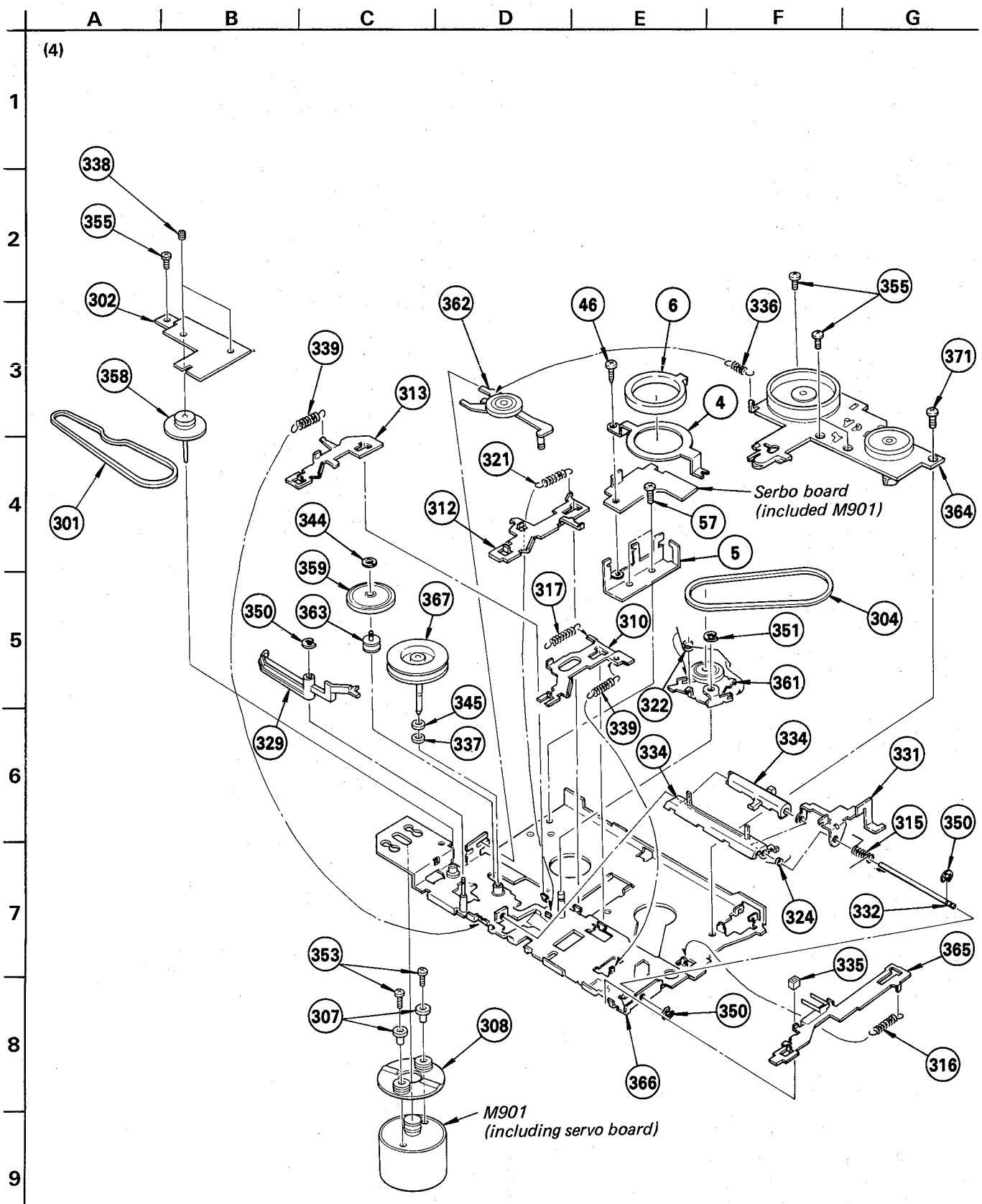


(2)


19
18
14
3
503
50
12
49
44
50
49
45
44
36
16
17
57
13
15
25
59
38
48
45
2
J102
CN101
23
21
CV1, 2
20
53
SP
S1
S2
S101
26
504
S102
27
J101
40
46
S103
L5

(3)


309
319
370
325
HRP
323
341
342
354
306
327
326
318
328
316
351
311
340
369
502
314
348
355
33
351
368
HE
360
350
303
352
305
32
320
31
30
29
22
57
505
S106
52


A
B
C
D
E
F
G
1
2
3
4
5
6
7
8
9
(4)
338
355
302
358
301
339
313
362
46
6
336
355
371
4
364
321
312
Serbo board
(included M901)
57
5
344
359
350
363
367
317
310
304
351
361
322
339
329
345
337
334
334
331
315
350
324
332
353
307
308
335
365
350
366
316
M901
(including servo board)

GENERAL SECTION

No.	Part No.	Description
1	3-303-110-00	STRAP, HAND
2	3-305-625-00	CAP, TUNING CAPACITOR
3	3-305-653-00	PLATE (A), BLIND
4 ♦	3-307-125-00	BRACKET, SPEAKER
5 ♦	3-307-711-00	BRACKET, SPRING
6	3-307-712-00	INSULATOR
7	3-314-203-00	SPRING
8	3-314-204-00	BRACKET, ANTENNA
9	3-314-206-00	KNOB, FUNCTION
10	3-314-207-00	BUTTON, PAUSE
11	3-314-208-00	SHAFT, STRAP
12	3-314-209-00	KNOB, CONTROL
13	3-314-211-00	KNOB, BAND SELECTION
14	3-314-212-00	KNOB, SHORTWAVE SELECTION
15	3-314-213-00	SHAFT, TUNING
16	3-314-214-00	SPRING
17	3-314-215-00	LEVER, BAND SELECTION
18	3-314-216-11	SCALE, DIAL
19	3-314-217-00	POINTER
20 ♦	3-314-218-00	PLATE (B), SHIELD
21 ♦	3-314-219-00	PLATE (C), SHIELD
22 ♦	3-314-225-00	BRACKET, PAUSE PC BOARD
23 ♦	3-314-226-00	RETAINER, PC BOARD
24	3-314-227-00	PLATE, ORNAMENTAL
25	3-314-229-00	DRUM, DIAL
26 ♦	3-314-230-00	PLATE (D), SHIELD
27 ♦	3-314-231-00	PLATE (E), SHIELD
28	3-314-234-00	LID, BATTERY CASE
29	3-314-235-00	BUTTON, FF
30	3-314-236-00	BUTTON, REW
31	3-314-237-00	BUTTON, FWD
32	3-314-238-00	BUTTON, REC
33	3-314-239-00	BUTTON, STOP
34	3-314-240-00	LID, CASSETTE
35	3-314-241-00	PANEL, CONTROL
36	3-314-244-00	CHASSIS, TUNER
37 ♦	3-314-251-00	PLATE (F), SHIELD
38	3-314-253-00	SPRING
39	3-561-819-11	SCREW
40	3-572-838-00	PLATE, GROUND
41	3-578-101-00	PLATE, ORNAMENTAL
42	3-590-518-00	CUSHION, MICROPHONE
43	3-831-441-XX	CUSHION, SPEAKER
44	3-881-911-00	PULLEY
45	3-888-156-00	SCREW

GENERAL SECTION

No.	Part No.	Description
46	7-621-255-15	SCREW +P 2X3
47	7-623-605-01	EYELET, 1.3X2.5
48	7-623-610-00	EYELET, 1.5X2.5
49	7-623-922-01	WASHER 2.0, NYLONE
50	7-625-712-40	RIVET 2X5
51	7-682-545-09	SCREW +B 3X4
52	7-685-104-14	TOTSU PTPWH 2X6 NON-SLIT, TYPE2
53	7-685-105-21	SCREW +P 2X8 TYPE2 SLIT
54	7-685-534-24	SCREW +P 2.6X8 TYPE2 SLIT
55	7-685-535-19	SCREW +BTP 2.6X10 TYPE2 N-S
56	7-685-538-19	SCREW +BTP 2.6X16 TYPE2 N-S
57	7-685-780-01	SCREW +PTT 2X3 (S)
58	7-685-792-09	SCREW +PTT 2.6X6 (S)
59	9-911-825-52	STRING, POINTER GUIDE 0.3
60	9-911-838-XX	CUSHION
61	9-911-840-XX	CUSHION
62	9-911-844-XX	CUSHION
63	9-911-863-XX	SPACER
64	A-3251-056-A	KNOB ASSY, TUNING
65	X-3307-102-0	HOLDER ASSY, BATTERY
66	X-3314-203-1	(E,UK,Canidian)...CABINET (A) ASSY
66	X-3314-203-3	(AEP).....CABINET (A) ASSY
67	X-3314-205-1	(E,UK,Canidian)...CABINET (B) ASSY
67	X-3314-205-3	(AEP).....CABINET (B) ASSY
68	3-314-228-00	SHEEL, SPEAKER

ACCESSORY & PACKING MATERIAL

No.	Part No.	Description
101	3-314-246-00	SPACER
102	3-314-248-00	CUSHION
103	3-314-249-00	INDIVIDUAL CARTON
104	3-527-213-00	LABEL, SERIAL NUMBER
105	3-570-631-71	BAG, POLYETHYLENE
106	3-701-624-00	BAG, POLYETHYLENE
107	3-703-707-01	STICKER, SONY SYMBOL (21)
108	3-773-385-11	MANUAL, INSTRUCTION
109	8-893-527-00	TAPE, DEMO (CD-814)
110	3-703-539-01	(AEP)....INSTRUCTION, FTZ
111	3-773-385-41	(AEP)....MANUAL, INSTRUCTION

NOTE:

- Items with no part number and no description are not stocked because they are seldom required for routine service.
- Items marked " ♦ " are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- Due to standardization, parts with part numbers (Δ-ΔΔΔ-ΔΔΔ-XX or Δ-ΔΔΔΔ-ΔΔΔ-X) may be different from those used in the set.
- If there are two or more same circuitsin a set such as a stereophonic machine, only typical circuit parts may be indicated and capacitors and resistors in other same circuits may be omitted.

CAPACITORS:

MF:μF, PF:μμF.

RESISTORS

- All resistors are in ohms.
- F : nonflammable

COILS

- MMH : mH, UH : μH

SEMICONDUCTORS

In each case, U : μ, for example:
UA···: μA···, UPA···: μPA···, UPC···: μPC,
UPD···: μPD···

MECHANISM SECTION

No.	Part No.	Description
301	3-306-803-11	BELT (42.5X1)
302 ♦	3-306-806-00	RETAINER, FLY
303	3-306-815-00	BELT (36.5X0.6)
304	3-306-816-00	BELT (30.5X0.9)
305	3-306-823-00	LEVER, SHUT-OFF
306	3-306-827-00	COLLAR, HEAD
307 ♦	3-306-828-00	COLLAR, MOTOR
308	3-306-829-00	CUSHION, MOTOR
309	3-306-830-00	SCREW, FITTING, HEAD
310	3-306-853-11	LEVER, FWD
311	3-306-854-00	LEVER, ERASING PROTECTION
312	3-306-855-00	LEVER, REW
313	3-306-856-11	LEVER, FF
314	3-306-858-00	SPRING
315	3-306-859-00	SPRING
316	3-306-860-00	SPRING, TENSION
317	3-306-861-00	SPRING, TENSION
318	3-306-862-00	SPRING
319	3-306-863-00	SPRING
320	3-306-864-00	SPRING
321	3-306-866-00	SPRING, TENSION
322	3-306-867-00	SPRING
323	3-306-872-00	SPRING, COMPRESSION
324	3-306-876-00	SPRING
325	3-306-877-11	GUIDE, WIRING
326	3-306-878-00	LEVER, DETECTION
327	3-306-879-00	GUIDE, TAPE
328 ♦	3-306-882-11	CHASSIS, HEAD
329	3-306-883-00	LEVER, RELEASE
330	3-306-896-00	SLIDER, SE
331	3-314-223-00	LEVER, EJECT
332	3-314-224-00	SHAFT, LOCK PLATE
333	3-314-232-00	HOOK
334	3-314-233-00	PLATE, LOCK
335	3-527-028-00	RUBBER, BRAKE
336	3-531-794-00	SPRING, TENSION
337	3-545-715-00	WASHER
338	3-547-625-00	SCREW, THRUST ADJUST
339	3-564-949-00	SPRING, TENSION
340	3-570-951-00	SPRING, TENSION
341	3-578-138-01	SEAM
342	3-578-138-11	SEAM
343	3-578-223-11	WASHER
344	3-590-523-00	WASHER, STOPPER
345	3-701-437-01	WASHER

MECHANISM SECTION

No.	Part No.	Description
346	3-701-437-11	WASHER
347	3-701-467-00	SCREW, LOCK
348	7-621-955-55	SCREW, TOTSU PWH 2X8
349	7-624-101-04	STOP RING 1.2 (E TYPE)
350	7-624-102-04	STOP RING 1.5, TYPE -E
351	7-624-105-04	STOP RING 2.3, TYPE -E
352	7-624-106-04	STOP RING 3.0, TYPE -E
353	7-627-552-57	SCREW, PRECISION +P 1.7X5
354	7-627-553-37	SCREW, TOTSU P 2X3
355	7-685-780-04	SCREW, TOTSU PTT 2X3
356	7-685-781-01	SCREW +PTT 2X4 (S)
357	7-688-002-03	W 2.6, SMALL
358	X-3306-804-0	FLYWHEEL (B) ASSY
359	X-3306-807-0	IDLER ASSY, FWD
360	X-3306-813-0	PINCH ROLLER ASSY
361	X-3306-815-0	LEVER ASSY, REW IDLER
362	X-3306-816-0	LEVER ASSY, FF IDLER
363 ♦	X-3306-817-0	SHAFT ASSY, T IDLER
364	X-3306-820-0	BEARING ASSY, REEL
365	X-3306-826-0	LEVER ASSY, REC
366 ♦	X-3306-827-0	CHASSIS ASSY
367	X-3306-830-0	FLYWHEEL (A) ASSY
368	3-314-220-00	BRACKET, COUNTER
369	3-314-221-00	SHAFT, STOP LEVER
370	3-314-222-00	LEVER, STOP

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ELECTRICAL PARTS

Ref.No.	Part No.	Description
501	1-501-280-00	ANTENNA, TELESCOPIC
502	1-548-558-21	TIMER, TAPE
503 ♦	1-610-006-00	PC BOARD, CONTROL
504 ♦	1-610-007-00	PC BOARD, MAIN
505 ♦	1-610-008-00	PC BOARD, PAUSE
506 ♦	A-3215-467-A	(Canadian,E)...PC BOARD ASSY, MAIN
506 ♦	A-3215-475-A	(UK).....PC BOARD ASSY, MAIN
506 ♦	A-3215-499-A	(AEP).....PC BOARD ASSY, MAIN
C1	1-102-958-00	CERAMIC 20PF 5% 50V
C2	1-161-013-00	CERAMIC 0.01MF 10% 25V
C3	1-162-009-00	CERAMIC 4.7PF 10% 50V
C4	1-101-586-00	CERAMIC 0.75PF 0.25PF 50V
C5	1-102-110-00	CERAMIC 220PF 10% 50V
C6	1-161-013-00	CERAMIC 0.01MF 10% 25V
C7	1-131-383-00	TANTALUM 10MF 20% 6.3V
C8	1-102-505-00	CERAMIC 6PF 0.5PF 50V
C9	1-102-883-00	(UK,Canadian,E)...CERAMIC 27PF 5% 50V
C9	1-102-673-00	(AEP).....CERAMIC 30PF 5% 50V
C10	1-102-505-00	CERAMIC 6PF 0.5PF 50V
C11	1-124-249-00	ELECT 0.1MF 20% 50V
C13	1-102-735-00	CERAMIC 120PF 5% 50V
C14	1-161-960-00	CERAMIC 100PF 2% 50V
C15	1-161-960-00	CERAMIC 100PF 2% 50V
C16	1-161-960-00	CERAMIC 100PF 2% 50V
C17	1-102-937-00	CERAMIC 4PF 0.25PF 50V
C18	1-161-013-00	CERAMIC 0.01MF 10% 25V
C19	1-123-647-00	ELECT 47MF 20% 6.3V
C20	1-123-308-00	ELECT 220MF 20% 10V
C21	1-161-059-00	CERAMIC 0.047MF 10% 25V
C22	1-101-004-00	CERAMIC 0.01MF 50V
C23	1-161-013-00	CERAMIC 0.01MF 10% 25V
C24	1-161-055-00	CERAMIC 0.022MF 10% 25V
C25	1-161-059-00	CERAMIC 0.047MF 10% 25V
C26	1-161-013-00	CERAMIC 0.01MF 10% 25V
C27	1-131-385-00	TANTALUM 22MF 20% 6.3V
C28	1-123-233-00	ELECT 10MF 20% 16V
C29	1-161-055-00	CERAMIC 0.022MF 10% 25V
C30	1-123-607-00	ELECT 0.1MF 20% 50V
C31	1-161-013-00	CERAMIC 0.01MF 10% 25V
C32	1-161-013-00	CERAMIC 0.01MF 10% 25V
C33	1-161-059-00	CERAMIC 0.047MF 10% 25V
C34	1-123-827-00	ELECT 220MF 20% 4V
C35	1-101-974-00	CERAMIC 20PF 5% 50V
C36	1-102-510-00	CERAMIC 12PF 5% 50V
C37	1-124-258-00	ELECT 3.3MF 20% 50V
C38	1-101-886-00	CERAMIC 62PF 5% 50V
C39	1-161-013-00	CERAMIC 0.01MF 10% 25V
C40	1-162-102-00	CERAMIC 220PF 10% 50V

ELECTRICAL PARTS

Ref.No.	Part No.	Description
C41	1-161-049-00	CERAMIC 0.0068MF 10% 25V
C44	1-102-106-00	CERAMIC 100PF 10% 50V
C45	1-102-106-00	CERAMIC 100PF 10% 50V
C46	1-161-039-00	(AEP)...CERAMIC 0.001MF 10% 25V
C47	1-161-055-00	(AEP)...CERAMIC 0.022MF 10% 25V
C101	1-123-379-00	ELECT 0.47MF 20% 50V
C102	1-123-607-00	ELECT 0.1MF 20% 50V
C103	1-123-647-00	ELECT 47MF 20% 6.3V
C104	1-161-054-00	CERAMIC 0.018MF 10% 25V
C105	1-123-611-00	ELECT 1MF 20% 50V
C106	1-123-613-00	ELECT 3.3MF 20% 50V
C107	1-123-618-00	ELECT 22MF 20% 6.3V
C108	1-161-043-00	CERAMIC 0.0022MF 10% 25V
C109	1-102-113-00	CERAMIC 390PF 10% 50V
C110	1-123-307-00	ELECT 100MF 20% 10V
C111	1-123-306-00	ELECT 47MF 20% 10V
C112	1-131-385-00	TANTALUM 22MF 20% 6.3V
C113	1-161-045-00	CERAMIC 0.0033MF 10% 25V
C114	1-161-055-00	CERAMIC 0.022MF 10% 25V
C115	1-102-113-00	CERAMIC 390PF 10% 50V
C116	1-123-613-00	ELECT 3.3MF 20% 50V
C117	1-161-043-00	CERAMIC 0.0022MF 10% 25V
C118	1-123-330-00	ELECT 22MF 20% 16V
C119	1-131-453-00	TANTALUM 0.22MF 20% 16V
C120	1-102-113-00	CERAMIC 390PF 10% 50V
C121	1-108-373-00	MYLAR 0.0047MF 10% 100V
C122	1-102-074-00	CERAMIC 0.001MF 10% 50V
C123	1-161-043-00	CERAMIC 0.0022MF 10% 25V
C124	1-124-258-00	ELECT 3.3MF 20% 50V
C125	1-124-258-00	ELECT 3.3MF 20% 50V
C126	1-123-306-00	ELECT 47MF 20% 10V
C127	1-124-249-00	ELECT 0.1MF 20% 50V
C128	1-123-306-00	ELECT 47MF 20% 10V
C129	1-123-308-00	ELECT 220MF 20% 10V
C130	1-123-308-00	ELECT 220MF 20% 10V
C131	1-124-258-00	ELECT 3.3MF 20% 50V
C132	1-161-053-00	CERAMIC 0.015MF 10% 25V
C133	1-102-074-00	CERAMIC 0.001MF 10% 50V
C134	1-161-013-00	CERAMIC 0.01MF 10% 25V
C135	1-161-013-00	CERAMIC 0.01MF 10% 25V
C136	1-102-106-00	CERAMIC 100PF 10% 50V
C137	1-102-106-00	CERAMIC 100PF 10% 50V
C138	1-102-106-00	CERAMIC 100PF 10% 50V
C139	1-102-074-00	CERAMIC 0.001MF 10% 50V
C141	1-102-074-00	(AEP)....CERAMIC 0.001MF 10% 50V
C142	1-102-114-00	(AEP)....CERAMIC 470PF 10% 50V
C143	1-102-114-00	(AEP)....CERAMIC 470PF 10% 50V
CF1	1-527-795-71	FILTER, CERAMIC
CF2	1-527-795-71	FILTER, CERAMIC

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WA-5000

ELECTRICAL PARTS

Ref.No.	Part No.	Description
CF3	1-527-290-00	(Canadian,E,AEP)...FILTER, CERAMIC
CF3	1-567-124-00	(UK).....FILTER, CERAMIC
CN101	1-507-749-00	JACK, EXTENTION POWER
CT1	1-151-442-00	CAP, TUNING, POLYETHYLENE
CT2	1-151-442-00	CAP, TUNING, POLYETHYLENE
CT5	1-141-180-00	CAP, TRIMMER
CV1	1-151-442-00	CAP, TUNING, POLYETHYLENE
CV2	1-151-442-00	CAP, TUNING, POLYETHYLENE
D1	8-719-768-71	DIODE 1S2687S-1
D2	8-719-100-21	DIODE RD3.9EB2
D3	8-719-921-19	DIODE 1SS119
D4	8-719-921-19	DIODE 1SS119
D5	8-719-907-31	DIODE SLP146B-60
D6	8-719-911-06	DIODE 1SS106
D7	8-719-911-06	DIODE 1SS106
D8	8-719-911-06	DIODE 1SS106
D9	8-719-921-19	DIODE 1SS119
D10	8-719-921-19	DIODE 1SS119
D11	8-719-921-19	DIODE 1SS119
D12	8-719-921-19	DIODE 1SS119
D101	8-719-921-19	DIODE 1SS119
D102	8-719-911-19	DIODE 1SS119
D103	8-719-901-96	DIODE SLP161B
HE	8-658-096-02	HEAD, ERASE EBF5-36
HRP	8-829-336-41	HEAD (PP-134-36M)
FL1	1-231-892-00	FILTER, BANDPASS
IC1	8-759-800-55	IC LA1207
IC101	8-759-200-49	IC TA7628P
J101	1-507-578-00	JACK, EXT MIC
J102	1-507-578-00	JACK, EARPHONE
L1	1-425-349-00	COIL, FM RF
L2	1-407-882-00	COIL
L3	1-405-818-00	(UK,E,Canadian)...COIL, FM OSC
L3	1-459-410-00	(AEP).....COIL, FM OSC (WITH CORE)
L5	1-402-026-00	ANTENNA, FERRITE-ROD
L6	1-401-939-00	COIL, ANTENNA (SW2)
L7	1-401-964-00	COIL, ANTENNA (SW2)
L8	1-401-952-00	COIL (ANT)
L9	1-402-025-00	COIL (ANT)
L10	1-402-040-00	COIL (ANT)
L11	1-405-983-00	COIL, OSC (SW2)
L12	1-406-008-00	COIL, OSC (SW2)
L13	1-405-985-00	COIL, OSC (SW4)

ELECTRICAL PARTS

Ref.No.	Part No.	Description
L14	1-405-986-00	COIL, OSC (SW5)
L15	1-406-009-00	COIL, OSC (SW5)
L16	1-406-017-00	COIL, OSCILLATOR (MW)
L17	1-408-555-00	MICRO INDUCTOR 2.2UH
L18	1-408-559-00	MICRO INDUCTOR 4.7UH
L19	1-408-575-00	MICRO INDUCTOR 100UH
M901	8-835-075-11	MOTOR, DC (DNE-5600B)
MIC	8-814-194-20	MICROPHONE (C-1006C)
Q1	8-729-119-32	TRANSISTOR 2SK193
Q2	8-729-883-92	TRANSISTOR 2SC2839
Q3	8-729-806-84	TRANSISTOR 2SC668-SP
Q4	8-729-119-32	TRANSISTOR 2SK193
Q5	8-729-245-83	TRANSISTOR 2SC2458
Q101	8-729-811-24	TRANSISTOR 2SD1012
Q102	8-729-245-83	TRANSISTOR 2SC2458-GR
Q103	8-729-245-83	TRANSISTOR 2SC2458-GR
R1	1-247-831-00	CARBON 1K 5% 1/6W
R2	1-247-825-00	CARBON 560 5% 1/6W
R3	1-247-841-00	CARBON 2.7K 5% 1/6W
R4	1-247-891-00	CARBON 330K 5% 1/6W
R5	1-247-819-00	CARBON 330 5% 1/6W
R6	1-247-823-00	CARBON 470 5% 1/6W
R7	1-247-879-00	CARBON 100K 5% 1/6W
R8	1-247-879-00	CARBON 100K 5% 1/6W
R9	1-247-881-00	CARBON 120K 5% 1/6W
R10	1-247-807-00	CARBON 100 5% 1/6W
R11	1-247-835-00	(UK,E,Canadian)...CARBON 1.5K 5% 1/6W
R11	1-247-837-00	(AEP)....CARBON 1.8K 5% 1/6W
R12	1-247-819-00	CARBON 330 5% 1/6W
R13	1-247-817-00	CARBON 270 5% 1/6W
R14	1-247-872-00	CARBON 51K 5% 1/6W
R15	1-247-853-00	CARBON 8.2K 5% 1/6W
R16	1-247-802-00	CARBON 62 5% 1/6W
R17	1-247-840-00	CARBON 2.4K 5% 1/6W
R18	1-247-831-00	CARBON 1K 5% 1/6W
R19	1-247-831-00	CARBON 1K 5% 1/6W
R20	1-247-851-00	CARBON 6.8K 5% 1/6W
R21	1-247-851-00	CARBON 6.8K 5% 1/6W
R22	1-247-847-00	CARBON 4.7K 5% 1/6W
R23	1-247-849-00	CARBON 5.6K 5% 1/6W
R24	1-247-831-00	CARBON 1K 5% 1/6W
R25	1-247-871-00	CARBON 47K 5% 1/6W
R26	1-247-855-00	CARBON 10K 5% 1/6W
R27	1-247-863-00	CARBON 22K 5% 1/6W

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Ref.No.	Part No.	Description
R28	1-247-859-00	CARBON 15K 5% 1/6W
R29	1-247-829-00	CARBON 820 5% 1/6W
R30	1-247-831-00	CARBON 1K 5% 1/6W
R101	1-247-843-00	CARBON 3.3K 5% 1/6W
R102	1-247-831-00	CARBON 1K 5% 1/6W
R103	1-247-855-00	CARBON 10K 5% 1/6W
R104	1-247-831-00	CARBON 1K 5% 1/6W
R105	1-247-829-00	CARBON 820 5% 1/6W
R106	1-247-851-00	CARBON 6.8K 5% 1/6W
R107	1-247-879-00	CARBON 100K 5% 1/6W
R108	1-247-812-00	(AEP).....CARBON 160 5% 1/6W
R108	1-247-813-00	(UK,E,Canadian)...CARBON 180 5% 1/6W
R109	1-247-873-00	CARBON 56K 5% 1/6W
R110	1-202-471-00	SOLID 4.7M 10% 1/4W
R111	1-247-831-00	CARBON 1K 5% 1/6W
R112	1-247-871-00	CARBON 47K 5% 1/6W
R113	1-247-811-00	CARBON 150 5% 1/6W
R114	1-247-863-00	CARBON 22K 5% 1/6W
R115	1-247-861-00	CARBON 18K 5% 1/6W
R116	1-247-797-00	CARBON 39 5% 1/6W
R117	1-247-809-00	CARBON 120 5% 1/6W
R118	1-247-847-00	CARBON 4.7K 5% 1/6W
R119	1-247-879-00	CARBON 100K 5% 1/6W
R120	1-247-867-00	CARBON 33K 5% 1/6W
R121	1-247-849-00	CARBON 5.6K 5% 1/6W
R122	1-247-827-00	CARBON 680 5% 1/6W
R123	1-247-801-00	CARBON 56 5% 1/6W
R124	1-247-854-00	(AEP).....CARBON 9.1K 5% 1/6W
R124	1-247-861-00	(E,UK,Canadian)...CARBON 18K 5% 1/6W

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R125	1-247-849-00	CARBON 5.6K 5% 1/6W
R126	1-247-807-00	CARBON 100 5% 1/6W
R127	1-247-801-00	(E,UK,Canadian)...CARBON 56 5% 1/6W
R127	1-247-854-00	(AEP).....CARBON 9.1K 5% 1/6W
R128	1-247-847-00	(AEP).....CARBON 4.7K 5% 1/6W
R129	1-247-802-00	CARBON 56 5% 1/6W
RV101	1-230-071-00	RES, VAR, CARBON 20K, VOLUME
S1	1-553-961-00	SWITCH, SLIDE, SW SELECT
S2	1-516-874-00	SWITCH, BAND SELECT
S101	1-552-848-00	SWITCH, SLIDE, REC/PB
S102	1-554-122-00	SWITCH, SLIDE, RADIO/TAPE
S103	1-554-123-00	SWITCH, SLIDE, ISS
S104	1-554-024-00	SWITCH, LEAF
S105	1-554-123-00	SWITCH, SLIDE, TONE
S106	1-553-510-00	SWITCH, SLIDE, PAUSE
SP	1-503-158-00	SPEAKER (050F008)
T1	1-404-126-00	IFT (SMALL TYPE)
T2	1-404-362-00	TRANSFORMER, IF
T3	1-404-202-31	IFT, FM DETECTOR
T4	1-404-127-00	IFT (SMALL TYPE)
T101	1-433-251-00	TRANSFORMER, BIAS OSCILLATOR

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